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BEFORE THE ARIZONA CORPORATION COMMISSION

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- BOB STUMP

IN THE MATTER OF THE APPLICATION OF SOLARCITY CORPORATION FOR A DETERMINATION THAT WHEN IT PROVIDES SOLAR SERVICE TO ARIZONA SCHOOLS, GOVERNMENTS, AND NON-PROFIT ENTITIES IT IS NOT ACTING AS A PUBLIC SERVICE CORPORATION PURSUANT TO ART. 15, SECTION 2 OF THE ARIZONA CONSTITUTION.

DOCKET NO. E-20690A-09-0346

**STAFF'S NOTICE OF FILING
DIRECT TESTIMONY**

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of Staff Witness Steve Irvine in the above-referenced matter.

RESPECTFULLY SUBMITTED this 30th day of September, 2009.

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Arizona Corporation Commission

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DIRECT

TESTIMONY

OF

STEVE IRVINE

DOCKET NO. E-20690A-09-0346

**IN THE MATTER OF THE APPLICATION OF
SOLARCITY FOR A DETERMINATION THAT
WHEN IT PROVIDES SOLAR SERVICE TO
ARIZONA SCHOOLS, GOVERNMENTS, AND
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PURSUANT TO ART. 15, SECTION 2 OF THE
ARIZONA CONSTITUTION**

SEPTEMBER 30, 2009

BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman
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IN THE MATTER OF THE APPLICATION OF)
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_____)

DOCKET NO. E-20690A-09-0346

DIRECT
TESTIMONY
OF
STEVE IRVINE
PUBLIC UTILITIES ANALYST IV
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

SEPTEMBER 30, 2009

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**EXECUTIVE SUMMARY
SOLARCITY CORPORATION
DOCKET NO. E-20690A-09-0346**

Staff's conclusions are as follows:

- Through its contracts with nonprofits, schools and governmental entities, SolarCity would provide electricity to the public.
- Staff believes that the SSAs have been structured as sales of electricity so that SolarCity and the schools could take advantage of federal tax incentives, which the schools otherwise did not qualify for.
- The provisions of the SSAs as a whole support Staff's position that the contracts are primarily for the sale of electricity to the schools.
- The contracts provide for the customer to pay SolarCity under the SSAs on a kWh basis.
- The facilities installed by SolarCity will be owned, operated, and maintained by SolarCity throughout the life of the contract unless the schools exercise an option to purchase the system at years 6 or 10 of the contract or at the end of the SSAs life, year 15 of the contract.
- The public has an interest in SolarCity's facilities in that the facilities are dedicated to supplying electricity to the public. In addition electricity generated in excess of the schools' own need at a given time would flow through the grid and could be available for public use.
- The electricity produced under an SSA is no different than electricity provided by the Incumbent Utilities, a commodity in which the general public has been held to have an interest.

- While SolarCity will provide its services through individual contract, this is not dispositive of the issue of whether it is functioning as a public utility. It is more the nature of the services it offers, and the fact that it offers its services to the public.
- SolarCity intends to serve a substantial portion of the public. SolarCity will compete with other public service corporations.

Staff recommends the following:

- That should the Commission find that SolarCity is acting as a public service corporation, the Commission continue to require SolarCity to provide its special contracts or a tariff with a standard contract to the Commission for review and approval until the Commission approved a CC&N for SolarCity.
- That should the Commission find that SolarCity is acting as a public service corporation, SolarCity should be required to apply for a CC&N.
- That the Commission's findings in this matter apply only to SolarCity's SSAs for schools, nonprofits and governmental entities. Determinations on other contracts or sales should be made upon separate application.

1 **I. INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Steve Irvine. I am a Public Utilities Analyst IV employed by the Arizona
4 Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff").
5 My business address is 1200 West Washington Street, Phoenix, Arizona 85007.
6

7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst.**

8 A. In my capacity as a Public Utilities Analyst, I conduct studies to estimate the cost of the
9 capital component and determine the overall revenue requirement in rate proceedings. I
10 also design rates to generate the revenue requirement in rate proceedings. My duties have
11 also included evaluating a variety of applications or components of applications including
12 financings, purchased power agreements, Renewable Energy Standard and Tariff
13 programs, and others.
14

15 **Q. Please describe your educational background and professional experience.**

16 A. In 1994, I graduated from Arizona State University, receiving a Bachelor of Science
17 degree in Business Marketing. In 1997, I received a Masters degree in Public
18 Administration from Arizona State University. I began employment with the Commission
19 in May of 2001 and have worked in the Utilities Division since September of 2002.
20

21 **Q. What is the scope of your testimony in this case?**

22 A. My testimony provides a discussion of the facts underlying SolarCity Corporation's
23 ("SolarCity" or "Company") request for a determination that, when it provides solar
24 service to Arizona schools, governments, and non-profit entities, it is not acting as a
25 Public Service Corporation pursuant to Article 15, Section 2 of the Arizona Constitution.

1 **Q. Does your testimony in this case draw any legal conclusions regarding SolarCity's**
2 **status as a public service corporation?**

3 A. No. My testimony is meant only to discuss the factual aspects of this matter. Legal
4 conclusions will be provided through briefs.

5
6 **Q. Have you reviewed the testimony submitted by SolarCity in this case?**

7 A. Yes. I reviewed the testimony of witnesses Ben Tarbell, Lyndon Rive, and David
8 Peterson.

9
10 **Q. Are these individuals employees of SolarCity?**

11 A. Mr. Tarbell is the Director of Products for SolarCity. Mr. Rive is the CEO of SolarCity.
12 Mr. Peterson, however, is Scottsdale Unified School District's Assistant Superintendent
13 for Operations. Testimonies of these individuals were filed jointly as witnesses for the
14 Applicant.

15
16 **Q. Briefly summarize how your testimony is organized.**

17 A. My testimony is organized into eleven sections. Section one is this introductory section.
18 Section two describes SolarCity and how it provides its service. Section three addresses
19 SolarCity's Application. Section four discusses the SolarCity Solar Service Agreements
20 ("SSAs") with the School district. Section five discusses the question of whether
21 SolarCity's provision of electricity is incidental to financing provisions of the contract.
22 Section six discusses other factors used to determine public service corporation status.
23 Section seven discusses the impact of providing service at wholesale. Section eight
24 discusses renewable energy credits. Section nine discusses other considerations. Section
25 ten discusses Commission rules as applied to SolarCity. Section eleven is a summary of
26 Staff's recommendations.

1 **II. WHO IS SOLARCITY AND HOW DOES IT PROVIDE ITS SERVICE**

2 **Q. Who is SolarCity?**

3 A. Solar City was founded in 2006. According to its CEO, it is a full-service solar power
4 company, providing design, financing, installation, and monitoring services.

5
6 **Q. What is an SSA?**

7 A. The Company describes the SSA as a financing arrangement that allows nonprofit entities
8 to take advantage of certain federal tax incentives pertaining to the use of solar energy.

9
10 **Q. Does Staff agree with the characterization of the SSAs as financing arrangements?**

11 A. No. This matter will be discussed further later in this testimony.

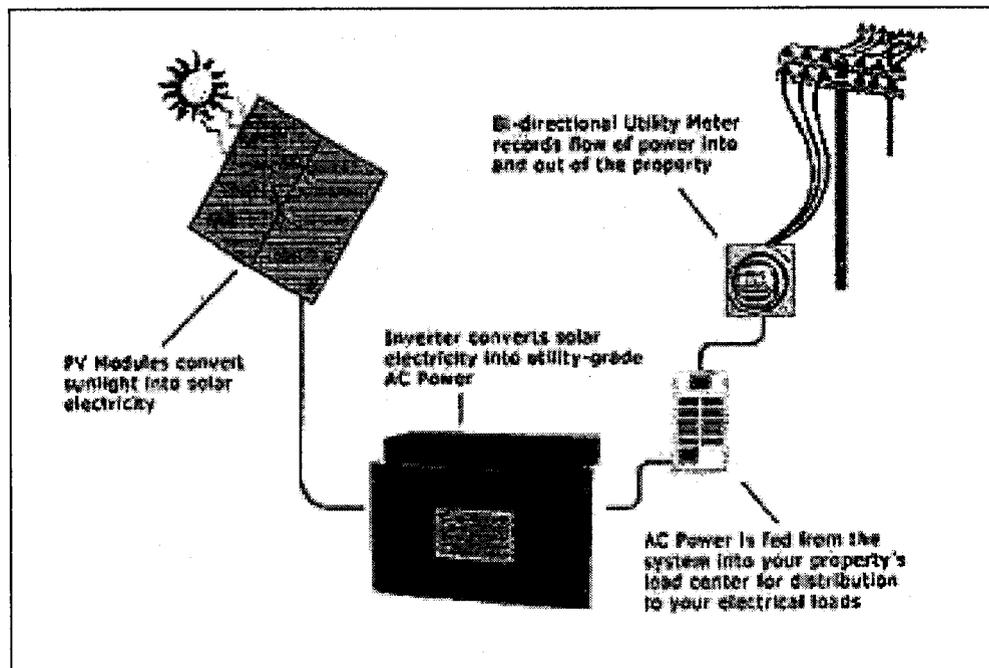
12
13 **Q. Please briefly describe the systems that SolarCity proposes to install through its
14 SSAs.**

15 A. I will discuss how SolarCity's facilities generate electricity. Information about the
16 equipment and physical arrangement of the equipment can be found in the Application and
17 in SolarCity's pre-filed testimony. The Application includes an SSA contract for
18 Coronado High School. The contract includes information about the generating
19 equipment, its anticipated production of electricity, and photo-maps of the school roofs
20 where the systems would be deployed. Testimony of Ben Tarbell describes the systems,
21 and Exhibit A of SolarCity's testimony includes a diagram showing how the major
22 components of the system are arranged and how they interconnect with the customer's
23 electric panel (load center), the utility meter, and the grid. These sources provide more
24 specific information about the equipment and the physical arrangement of the equipment.
25 I will, nevertheless, describe the equipment and its arrangement in brief.

1 The major system components include First Solar FS-275 thin film modules, SatCon
2 power inverters, the customer's existing electrical panel (load center), the Incumbent
3 Utility's bi-directional meter, and the grid itself. The First Solar FS-275 thin film modules
4 are photovoltaic panels that are used for generating electricity. The SatCon power
5 inverters are devices that convert DC energy produced by the solar panels to AC energy
6 that can be used by the school. The customer's existing electrical panel is the point of
7 receipt of energy from the grid. It is not common to refer to an electrical panel as a 'load
8 center' as has been done in the diagram below; however, it is likely to be simply another
9 term for electrical panel, or service panel. Finally, the term "grid" refers to the Incumbent
10 Utility's distribution wires and equipment combined with all other interconnected
11 distribution and transmission wires and associated equipment.

12
13 These components are arranged as described by the diagram included in Exhibit A of
14 SolarCity's prefiled testimony. This diagram is included below.

15
16 Diagram I



1 **Q. Please briefly describe the physical arrangement of the equipment that SolarCity**
2 **proposes to install.**

3 A. As seen in Diagram I from left to right, the system begins with photovoltaic panels. While
4 not shown in the diagram, they would be installed on the roofs of the schools. The
5 photovoltaic panels use energy from the sun to produce electricity. The panels connect to
6 inverters that convert DC electricity produced by the panels into AC electricity used by
7 the schools. SolarCity testimony further explains that the inverters are certified to ensure
8 that the system safely interconnects to the grid without risk of islanding if the grid voltage
9 goes down.¹ As further seen in Diagram I, the inverter connects to the schools' electrical
10 panels, or load centers. Beyond the electrical panel is a bi-directional meter capable of
11 measuring either the kWh that flows from the grid to the school, or alternatively a net
12 production of energy resulting in the passage of kWh to the grid. The meter connects to
13 the grid as it does conventionally. Not depicted in this diagram is a meter measuring the
14 electrical output of the photovoltaic panels. SolarCity testimony makes reference to such
15 a device as follows:

16
17 **At what point is it possible to identify electricity that has been**
18 **created in the facilities?**

19 The energy created by the solar energy system is usable by the school as
20 soon as it exits the inverter as AC electricity. The inverter output will be
21 metered separately from the building load.²

22
23 **Q. Why is a meter that measures the kWh produced by the panels necessary?**

24 A. The SSAs establish a payment rate that is based on a specified rate per-kWh.
25 Consequently, it is important to know how many kWh are produced by the panels. The
26 Incumbent Utility's bi-directional meter measures only the amount of kWh that flows
27 from the grid to the school, or conversely the amount of kWh that flows from the school to

¹ Pre-Filed Direct written testimony of SolarCity witness Ben Tarbell, at 2, lines 25-27.

² Pre-Filed Direct written testimony of SolarCity witness Ben Tarbell, at 3, lines 12-14.

1 the grid. Consider the following hypothetical example and imagine that the photovoltaic
2 panels produce 4 kWh and that the school needs 10 kWh. In this example, the school
3 needs 6 kWh from the grid, and the Incumbent Utility's meter measures 6 kWh.

4
5 **Equation I**

6 School's Need Panel Produces Grid Supplies
7 10 kWh - 4 kWh = 6 kWh

8
9 Now consider an example where the photovoltaic panels produce 10 kWh and the school
10 needs 16 kWh to meet its electric load. In this example, the school needs 6 kWh from the
11 grid, and the Incumbent Utility's meter measures 6 kWh.

12
13 **Equation II**

14 School's Need Panel Produces Grid Supplies
15 16 kWh - 10 kWh = 6 kWh

16
17 In both examples, the Incumbent Utility supplies 6 kWh and its meter measures the
18 passage of 6 kWh from the grid to the school. In either example, the Incumbent utility's
19 meter senses and records only the passage of 6 kWh from the grid to the school, having no
20 ability to measure the school's actual load or the reduction to that load as a result of kWh
21 generated by the photovoltaic panels. Consequently, a meter measuring the production of
22 electricity from the panels is necessary in order to calculate payments to SolarCity.
23 SolarCity would install, maintain, own, and read such a meter. It would be located at
24 some point between the photovoltaic panels and the schools' electric panels (load centers).

1 **Q. In this arrangement, does all the SolarCity equipment connect on the customer's side**
2 **of the Incumbent Utility's meter?**

3 A. Yes. SolarCity's equipment is installed only on the customer's side of the Incumbent
4 Utility's meter.

5
6 **Q. Who owns the equipment associated with SolarCity's SSAs?**

7 A. SolarCity owns the equipment associated with the SSAs. The Application states,
8 "SolarCity retains initial ownership and "use" of the system as defined in the Federal tax
9 code, thus allowing them to capitalize on the available tax incentives which would
10 otherwise be stranded."³ Testimony of Lyndon Rive states, "SolarCity finances, designs,
11 constructs, owns, operates and maintains the solar system for the benefit of the
12 customer."⁴

13

14 **III. SOLARCITY'S APPLICATION**

15 **Q. Please describe SolarCity's request.**

16 A. SolarCity seeks a determination by the Commission that, when it provides solar energy
17 service through an SSA to schools, government or nonprofits, it is not acting as a public
18 service corporation.

³ Application, at 6, lines 22-24.

⁴ Pre-filed written Direct Testimony of SolarCity witness Lyndon Rive, at 2, lines 24-26.

1 **Q. Is there a description for the term public service corporation in Article 15, Section 2**
2 **of the Arizona Constitution?**

3 A. While I am not a lawyer, I am aware that the Arizona Constitution, Article 15, Section 2,
4 describes a public service corporation as follows:

5
6 All corporations other than municipal engaged in *furnishing* gas, oil, or
7 *electricity* for light, fuel, or power; or in furnishing water for irrigation,
8 fire protection, or other public purposes; or in furnishing, for profit, hot or
9 cold air or steam for heating or cooling purposes; or engaged in collecting,
10 transporting, treating, purifying and disposing of sewage through a system,
11 for profit; or in transmitting messages or furnishing public telegraph or
12 telephone service, and all corporations other than municipal, operating as
13 common carriers, shall be deemed public service corporations. (Emphasis
14 added).

15

16 **Q. Does SolarCity believe that it is furnishing electricity through its SSAs?**

17 A. No. SolarCity represents that it is only furnishing equipment and maintenance.
18 According to SolarCity, the SSA itself provides that SolarCity will never own the
19 electricity because the SSA states that, from the moment it is created, the electricity is in
20 the sole legal possession of the School District. Finally, SolarCity states that its SSAs are
21 financing arrangements only and not a means for furnishing electricity.

22

23 **Q. Does Staff agree with SolarCity's assertions on this issue?**

24 A. No. Staff does not believe that SolarCity's positions on these issues are determinative of
25 the issue of whether it is furnishing electricity. A party cannot simply through semantics
26 change the true nature of a transaction and the nature of the services offered.

1 **IV. THE SOLARCITY SSAs WITH THE SCHOOL DISTRICT**

2 **Q. Briefly describe the SSAs at issue in this proceeding.**

3 A. According to the testimony of Lyndon Rives (at Q.9 and Q.10), an SSA is a third-party
4 financing arrangement which allows SolarCity and a third-party investor to finance,
5 install, own, operate and maintain a solar system for the benefit of and located on a
6 customer's property with no up-front capital expense to the customer. Pursuant to the
7 agreement, SolarCity finances, designs, constructs, owns, operates and maintains the solar
8 system for the customer's benefit. SolarCity charges the customer on a per kWh basis.
9 SolarCity witness Rives (at Q. 9) states that it retains ownership and use of the system as
10 defined in the Federal Tax code, thus allowing it to capitalize on the available tax
11 incentives which would otherwise be stranded.

12

13 **Q. Has SolarCity limited the use of its SSAs to a particular group of customers?**

14 A. Yes, SolarCity has stated in its Application that the SSAs will be used only for schools,
15 governmental entities or other non-profit customers.

16

17 **Q. How many SSAs does SolarCity anticipate it will enter into over the next few years?**

18 A. In response to STF 2.28, the Company states the following:

19

20 However, in its best estimate SolarCity anticipates the potential for a total
21 of 20 MW in systems via SSA's in AZ over the next 2 years, 100 MW
22 over 5 years and 1 GW over 10 years. SolarCity estimates that 50% of the
23 SSAs will be schools (half k-12, half post-secondary), 40% government
24 (state and local), 10% other non-profits. Geographically the installations
25 will largely track population densities with a bend toward jurisdictions
26 with higher electricity prices and/or higher incentives since the value
27 proposition of solar is stronger there.

1 **Q. Does SolarCity only provide service through SSAs?**

2 A. No. SolarCity uses SSAs currently only for schools, nonprofits and governmental entities.
3 It is Staff's understanding that SolarCity provides services to residential customers and
4 others through PPAs. In response to STF 4.11, SolarCity states that it has utilized cash
5 sales, Solar Leases and Solar Services Agreements to install those systems. The estimated
6 total load for Arizona is 2,067 kW.

7
8 **Q. How does the federal stimulus program affect the structure of any transaction**
9 **between SolarCity and the Schools?**

10 A. SolarCity has explained that non-profit entities, such as schools, cannot directly benefit
11 from tax incentives and must, therefore, make use of a third-party who can make use of
12 the tax incentives and pass the savings on to the school district. SolarCity also explains
13 that should the School District lease or own the solar system, it would be considered the
14 "user" of the system by the IRS and subsequently not be eligible for tax incentives.
15 SolarCity explains that the SSAs are designed to comply with the tax incentive
16 requirements. In response to STF 4-16, SolarCity claims that under the American
17 Recovery and Renewal Act ("ARRA") Federal Stimulus program, Arizona has been
18 allocated approximately \$30 million for school improvements and school energy
19 efficiency projects.

20
21 **Q. What are the available tax incentives for solar systems and when do they expire?**

22 A. The following information was provided in the testimony of SolarCity Witness Lyndon
23 Rives (at Q. 12):

- 24
25 • 30% investment tax credit which runs through December 31, 2016 and then is
26 reduced to 10%.
27
28 • 50% first year bonus depreciation is part of the American Recovery and Renewal
29 Act of 2009 and it expires on December 31, 2009.

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- Modified Accelerated Cost Recovery system (“MACRS”) depreciation – currently not scheduled for expiration.

Company witness Rives (at Q. 13) explains that non-profit entities are tax exempt and thus cannot directly benefit from tax incentives. He also states that the IRS rules make it very clear that a transaction such as an SSA is the only way for a non-profit entity to obtain the benefits of solar energy cost effectively because it allows a third party to capitalize on the available tax incentives. (at Q. 14)

Q. As you stated earlier, SolarCity considers an SSA to be a financing arrangement. Please discuss Staff’s view of the SSA in regard to financing.

A. First, it is important to look at a definition of “financing.”

Q. Is there a standard definition for “financing”?

A. Most commonly, financing is used to describe financial methods used to obtain a house or car when not purchased outright. In this context, financing is understood to mean payments for principal and interest with a goal of eventual ownership. The term “financing” would not appear to describe what would occur under an SSA.

Q. Is an SSA a financing vehicle for the schools?

A. No. It does not appear that the SSAs include payments for principal and interest with a goal of eventual ownership. Furthermore, the Application does not characterize the SSA in standard financing terms as a lease with the option to purchase. The Application states that a lease cannot be used for SSAs with non-profits: “Other commercial and residential solar installations can be made financially feasible through a lease; however the tax-code makes this impossible for non-profits (see Exhibit “C”).”⁵

⁵ Application, at 13, lines 18-19.

1 **Q. Is the SSA a lease whereby SolarCity is leasing the generating equipment to the**
2 **schools?**

3 A. The SSA has a number of features similar to leasing arrangements, but it is definitely not a
4 lease. Mr. Rives explains that a lease or sale of the system to the nonprofit is not possible:
5 “If a non-profit entity is the lessee or owner of a solar system then they are considered the
6 ‘user’ of the system, and the IRS will not allow tax credits to be taken for that system.” (at
7 Q. 14.)
8

9 **Q. What do their advertising materials say about what they do?**

10 A. SolarCity has communicated to Staff that it has not prepared any literature to promote
11 SSAs in the Arizona market. It has provided an example of literature used to promote
12 Purchase Power Agreements (“PPAs”) in other states. The PPAs advertising literature
13 describes the PPAs in a way that suggests many similarities to the SSAs that are the
14 subject of the Application. The PPA literature also makes reference to the purchase of
15 electricity by the customer.
16

17 **Q. Who owns the equipment?**

18 A. As stated previously, SolarCity would own the SSA equipment. At certain intervals, the
19 School District could exercise the option to purchase the equipment. The SSA contracts
20 do not result in the eventual ownership of the equipment by the School District unless it
21 exercises the purchase option.
22

23 **Q. Why is determining whether the SSA can accurately be described as a financing**
24 **vehicle for the schools important to the question raised by SolarCity’s Application?**

25 A. While each case would need to be looked at on an individual basis, were an SSA clearly to
26 provide schools with ownership of solar equipment and were payments made to SolarCity

1 clearly meant as payment for the solar equipment, one might reasonably conclude that the
2 sale of electricity is merely incidental to the SSA. But, the Agreement is not structured
3 this way.
4

5 **V. IS SOLARCITY'S PROVISION OF ELECTRICITY INCIDENTAL TO THE**
6 **PURPOSE OF THE SSAs?**

7 **Q. What position does SolarCity take in regard to the significance of the production of**
8 **electricity by the solar panels that would be installed under an SSA?**

9 A. SolarCity views the production of electricity as being only incidental to the SSA.
10 SolarCity views and characterizes SSAs as financing mechanisms that enable schools to
11 obtain solar panels for the production of electricity. SolarCity claims that the provision of
12 electricity is not its business objective in the SSA arrangement. In fact, SolarCity states
13 that the per-kWh payments specified in the SSA are not payments for electricity, but are
14 instead associated with the equipment and related maintenance thereof. These positions
15 can be seen in the Application as follows:

16
17 While the solar panel systems that Solarcity designs, finances, installs, and
18 operates may be used by the schools to produce electricity, the SSA
19 arrangement in the context of a non-profit entity is fundamentally a
20 financing tool; the fact that a commodity is produced is merely incidental
21 to the purpose of the SSA for a non-profit.⁶

22
23 The SSA at issue in this Application makes it clear that Solarcity is in the
24 business of furnishing equipment and ongoing maintenance thereof to the
25 School District and not "electricity for light, fuel, or power." In fact, the
26 specific language of the SSA itself indicates that SolarCity actually never
27 really owns the electricity that its solar equipment creates. The SSA states
28 that, ". . .Purchaser will take title to all electric energy that the System
29 generates from the moment the System produces such energy.. ." SSA, at
30 Exhibit 7, paragraph 4(a) (see Exhibit "B").⁷
31

⁶ Application, at 13, lines 9-12.

⁷ Application, at 8, lines 7-8.

1 The Customer makes payments to SolarCity for the equipment and related
2 maintenance thereof, and such payments are calculated in relation to the
3 amount of electricity the system produces;⁸
4

5 **Q. Does Staff agree that the production of electricity is incidental to the SSA?**

6 A. No, not at all. Staff believes that there are two key factors that are important to
7 determining whether the production of electricity is incidental to the SSA: 1) Whether the
8 SSA can accurately be described as merely a means for the schools to finance the
9 acquisition of solar generating equipment, and, 2) whether the agreement primarily
10 provides for the provision of electricity. Staff believes that the answer to the first question
11 is “No;” and that the answer to the second question is “Yes”.

12
13 **Q. Is it clear that the SSA was structured so that the provision of electricity would be**
14 **the primary purpose of the contract?**

15 A. Yes, I believe that it is. The evidence suggests that the SSAs were intentionally structured
16 to be a contract for the sale of electricity. While SolarCity argues that the agreements are
17 not for the sale of electricity, this is belied by the Solar Energy Industries Association’s
18 (“SEIA”) Guide to Federal Tax Incentives for Solar Energy, Version 3.0, Released May
19 21, 2009, which is attached to SolarCity witness’ Lyndon Rives testimony. In order to
20 take advantage of the federal tax incentives, the SEIA 1.1.3 states:

21
22 The key when dealing with such an entity [nonprofits] is to sign a contract
23 merely to sell it electricity. Someone who merely buys electricity from
24 solar equipment owned by someone else is not considered to “use” the
25 equipment. Care should be taken to make sure the contract is not
26 characterized by the IRS as a lease of the solar equipment in substance
27 even though it looks in form like a power contract.

⁸ Application, at 6, lines 25-27.

1 **Q. Is an SSA a financing vehicle that provides a means for the schools to obtain an**
2 **ownership interest in solar panels rather than an agreement for the provision of**
3 **electricity?**

4 **A. No.** The intent apparently was not to structure it as a financing, because the nonprofit
5 would not be able to obtain the tax benefits then. Again, this is clear from the SEIA
6 discussion at 1.1.3:

7
8 Equipment must be used in the United States to qualify for a commercial
9 solar tax credit. In addition, commercial solar tax credits cannot be
10 claimed on equipment that is "used" by someone who is not subject to
11 U.S. income taxes.

12
13 Thus, "use" of the equipment by a school, municipal utility, government
14 agency, charity or other tax-exempt organization (unless the equipment is
15 used in a taxable side business) or in some cases by an electric cooperative
16 will rule out a credit on the equipment. This means that solar equipment
17 cannot be leased to such an entity. A lessee "uses" the equipment it is
18 leasing. However, a lease with a term of less than six months does not
19 count as a "use." The credit is calculated in the year equipment is first put
20 into service. Ineligible use of the equipment at any time during the first
21 five years would cause part of the tax credit claimed to be recaptured.

22
23 Thus, the SSAs could not be structured as "mere financing arrangements" or SolarCity
24 would not be eligible for the various tax incentives.

25
26 It is clear that, by the terms of the SSAs, SolarCity will own, operate and maintain all of
27 the solar electric generating equipment. What the School District receives under the SSAs
28 is solar-generated electricity at a constant, known, and contractual price.

29
30 SolarCity states that the SSAs were set up this way to provide a means for the schools to
31 obtain solar panels with no upfront costs. This may be true. But, being able to capitalize
32 on the various tax incentives meant in turn that the agreement had to be structured as a

1 sale of electricity. And, that is exactly what the SSA is: an agreement for the sale of
2 electricity.

3
4 Various provisions in the agreement support Staff's view of the overall purpose of the
5 Agreement, in addition to the SEIA. The terms of the SSAs provide that SolarCity will
6 own the panels and the associated equipment, and that the schools may never own the
7 solar panels. While the Agreement contains an option to purchase, it cannot be exercised
8 for at least six (6) years, which was again apparently done so that SolarCity would not lose
9 any part of the tax credit to be claimed. What is clear is that the primary benefit or
10 commodity the schools obtain through the SSAs is electricity.

11
12 **Q. Are there other provisions in the actual agreements and Application that actually**
13 **support Staff's opinion that the SSAs are primarily a contract to provide electricity?**

14 **A.** Yes. There are several references to the purchase of electricity at various places in the
15 SSAs and Application. The following provisions support Staff's view:

- 16
17 • The Agreement, (Application Ex. B, hereinafter referred to as "Agreement") at
18 page 4 under the heading Monthly Charges states "...Purchaser shall purchase all
19 such electric energy as and when produced by the System..."(Emphasis added).
- 20 • Prior to the amendment of August 5, 2009, the Agreement at page 5 under the
21 heading Environmental Attributes and Environmental Incentives stated, "...and
22 Purchaser's purchase of electricity under this Agreement does not include
23 Environmental Attributes..."(Emphasis added).
- 24 • The Agreement at page 8 under the heading Outages states, "Purchaser shall be
25 permitted to be off line for two (2) full twenty-four (24) hour days (each, a
26 "Scheduled Outage") per calendar year during the Term, during which days

1 Purchaser shall not be obligated to accept or pay for electricity from the
2 System..."(Emphasis added).

3
4 **Q. Are there other provisions that support Staff's view that this is not primarily a**
5 **financing arrangement?**

6 A. If this were a financing arrangement, one would expect that the School Districts would
7 take ownership of the solar panels at some time. However, the SSAs do not provide that
8 the School District will own the solar panels. Instead, the SSAs provide an option for the
9 School District to purchase the panels at the end of years 6 and 10 of the SSA term (year
10 15) (See Lyndon Rive testimony, Q. 18) and:

11
12 **Option to Purchase.** At the end of the sixth (6th) and tenth (10th)
13 Contract Years and at the end of the Initial Term and each additional
14 Term, so long as Purchaser is not in default under this Agreement,
15 Purchaser may purchase the System from Seller on any such date for a
16 purchase price equal to (i) with respect to an option exercised at the end of
17 the sixth (6th) or tenth (10th) Contract Years or at the end of the Initial
18 Term, the greater of (A) the amount set forth at such time in the Purchase
19 Option Price schedule in Exhibit 1, and (B) the Fair Market Value of the
20 System, and (ii) with respect to an option exercised at the end of an
21 Additional Term, the Fair Market Value of the System. The "Fair Market
22 Value" of the System shall be determined by mutual agreement of
23 Purchaser and Seller; provided, however, if Purchaser and Seller cannot
24 agree to a Fair Market Value within thirty (30) days after Purchaser has
25 exercised its option, the Parties shall select a nationally recognized
26 independent appraiser with experience and expertise in the solar
27 photovoltaic industry to determine the Fair Market Value of the System.⁹
28

29 The following provision allows the School Districts to terminate the SSAs at any time.
30 SolarCity would then remove the panels.

31
32 **Removal of System at Expiration** Upon the expiration or earlier
33 termination of this Agreement (provided Purchaser does not exercise its
34 purchase option), Seller shall, at its expense, remove all of its tangible
35 property comprising the System from the Facility on a mutually
36 convenient date but in no event later than ninety (90) days after the

⁹ Agreement, application Ex. B at 13.

1 expiration of the Term. The Facility shall be returned to its original
2 condition, except for System mounting pads or other support structures,
3 which may be left in place, and ordinary wear and tear. In no case shall
4 Seller's removal of the System affect the integrity of Purchaser's roof,
5 which shall be as leak proof as it was prior to removal of the System.¹⁰
6

7 There is also an Early Termination provision which was discussed by SolarCity witness
8 Lyndon Rives (Q. 19):
9

10 **The SSA contains a table of "termination values"; please explain these**
11 **and how they differ from the buy-out amounts?** The termination
12 values are what the customer pays if they breach the contract. These
13 amounts allow SolarCity to be made whole if the customer does not live
14 up to their end of the bargain. These amounts are completely different
15 from the buy-out option amounts which can be exercised at the specified
16 times if the customer is in good standing under the SSA.
17

18 All of these provisions lend support to the view that the contract was set up as one for the
19 sale of power.
20

21 **Q. What other contractual provision strongly supports the view that the contract was**
22 **set up as a sale of electricity?**

23 A. One of the most significant provisions which support Staff's view is the provision which
24 specifies payment on a per-kWh basis.
25

26 **Q. How do all of these passages relate to the question of determining whether the**
27 **provision of electricity in the context of the SSAs is incidental to some other**
28 **function?**

29 A. When all of these provisions are read as a whole, and the intent of the SSA is analyzed,
30 the SSAs are clearly not a means for the School District to primarily finance its ownership
31 of the solar panels. Under SSA terms, SolarCity will own the panels for at least a period
32 of 6 years, done apparently for tax purposes. SolarCity will charge the School District for

¹⁰ Application, Ex. B at 10.

1 electricity on a per-kWh rate during that time period, so that the Agreement is one for the
2 purchase of power and not the sale or use of equipment. SolarCity may then sell the
3 system to the School District at the Fair Market Value of the System, if the School District
4 elects that option, but only at the end of 6 years, 10 years, or the end of the SSA.
5 Generally, financings, such as the financing of a car or house, include payments of both
6 interest and principal calculated to lead to eventual ownership. One might readily
7 conclude that the per-kWh payments provided for in the SSAs were purposely structured
8 as payments for electricity, rather than as a financing of the solar equipment, so that
9 SolarCity would be eligible for all of the various tax incentives and could pass those
10 through to the School District, which otherwise would not qualify.

11
12 **Q. What does Staff conclude in regard to whether the provision of electricity in the**
13 **context of the SSA is incidental in nature?**

14 A. Staff concludes that the provision of electricity under the SSAs is not incidental in nature,
15 but would instead appear to be the primary purpose of the agreements.

16
17 **VI. OTHER FACTS USED TO DETERMINE PUBLIC SERVICE CORPORATION**
18 **STATUS**

19 **Q. What other facts were considered by Staff?**

20 A. It is my understanding that the *Serv-Yu* factors, which are referred to in SolarCity's
21 Application, identify facts that are useful when analyzing whether an entity is engaging in
22 provision of service as a public service corporation. The factors are as follows:

- 23
24 • What the corporation actually does,
25 • Dedication to public use,
26 • Articles of incorporation, authorization, and purposes,
27 • Dealing with the service of a commodity in which the public has been generally
28 held to have an interest,
29 • Monopolizing or intending to monopolize the territory with a public service
30 commodity,

- 1 • Acceptance of substantially all requests for service,
- 2 • Service under contracts and reserving the right to discriminate is not always
- 3 controlling, and
- 4 • Actual or potential competition with other corporations whose business is clothed
- 5 with public interest.

6
7 **Q. Did SolarCity list the Serv-Yu factors in its Application?**

8 A. Yes. SolarCity discussed the Serv-Yu factors as evidence in support of a conclusion that
9 it would not be a public service corporation when operating through SSAs.

10
11 **Q. Does Staff agree with the conclusions SolarCity makes in the Application in regard to**
12 **application of the Serv-Yu factors?**

13 A. No. Staff's conclusions in regard to application of the Serv-Yu factors are discussed in
14 this section.

15
16 **Q. Please discuss the relevant facts in the context of the SolarCity SSA.**

17 A. I will address facts that the Commission should consider under each of these prongs. The
18 legal significance of these facts will be discussed in the briefs.

19
20 **1) What the corporation actually does.**

21
22 **Q. What does Solar City actually do?**

23 A. SolarCity witness Rive states first that "SolarCity is a full-service solar power company
24 that provides design, financing, installation and monitoring services." Testimony at 1. He
25 goes on to state that SolarCity finances, designs, constructs, owns, operates and maintains
26 the solar system for the benefit of the customer." Testimony at 2. While the Application
27 characterizes the SSAs that SolarCity proposes for schools, governments, and non-profits
28 in Arizona as financing arrangements, the agreements as a whole are structured as
29 agreements for the provision of solar electricity. The Application and agreements in fact
30 refer to the sale or purchase of electricity. The Application states, "The Customer

1 becomes the owner of all electricity produced the moment the electricity is produced.¹¹
2 The payments made by customers to SolarCity are expressed on a per kWh basis. The
3 Application further states, "The Customer makes payments to SolarCity for the equipment
4 and related maintenance thereof, **and such payments are calculated in relation to the**
5 **amount of electricity the system produces.**"¹² [Emphasis added].
6

7 SolarCity states the following in its Application:
8

9 However, the solar facility will not fulfill 100% of the customer's
10 electricity needs, which will necessitate the customer remaining connected
11 to the public utility grid in order to compensate for any electricity supply
12 shortfalls. As such, Solarcity is not a "critical link" in the chain of
13 electricity generation nor does it provide service to a large segment of the
14 population. Rather, Solarcity provides an optional service to a limited
15 customer base.¹³
16

17 Implicit in this statement is that a SolarCity solar facility meets some part of a customer's
18 electricity needs. While SolarCity may characterize the SSA as a financing arrangement,
19 it is more clearly intended as a vehicle for the customer to obtain lower cost electricity, by
20 offsetting the cost of electricity provided by APS and SRP, with the lower cost electricity
21 produced by SolarCity's solar panels. The customer will pay SolarCity on a per-kWh
22 basis for each kWh produced by the solar panels.
23

24 A given electron that would flow through to the school cannot be distinguished as
25 emanating either from the SolarCity solar panel or from the Incumbent Utility unless
26 either the utility or solar panels were meeting 100 percent of the school's load at the time.

27 While there would be some differences between the manner in which SolarCity and the

¹¹ Application, at 6, lines 20-21.

¹² Application, at 6, lines 25-27.

¹³ Application, at 11, lines 20-25.

1 local utilities, Arizona Public Service and Salt River Project, would provide electricity to
2 the Scottsdale Unified School District, there are a number of similarities. Were the SSAs
3 to function as planned, SolarCity and the Incumbent Utilities both own their respective
4 generation facilities that would provide electricity to the schools and both would bill the
5 schools, at least in part, on a per-kWh basis.

6
7 **2) Dedication to public use.**

8
9 **Q. Is the provision of solar electricity a service or commodity that the public has an**
10 **interest in?**

11 **A.** This factor looks at whether the company is dealing with the service of a commodity in
12 which the public has generally been held to have an interest. Electricity is a commodity in
13 which the public has generally been held to have an interest. When the SSAs are
14 considered in their entirety, it is clear that their fundamental purpose is to provide
15 electricity.

16
17 A devotion to public use also means that the public generally, in so far as it is practicable,
18 has the right to enjoy service from the facilities. The SSAs envision the installation of
19 solar panels that would have a physical connection to the grid by way of a bi-directional
20 meter. Electricity generated in excess of the schools' own need at a given time would
21 flow through the grid and could be available for public use. While this event may be
22 infrequent, it would occur at the time of net production of electricity.

23
24 In the Application, SolarCity claims that the solar electricity equipment is dedicated to the
25 individual school, non-profit, or government entity and that generation and consumption
26 takes place entirely on the customer's private property on the customer's side of the meter.

1 SolarCity argues that in this fashion it dedicates SolarCity's private property only to the
2 individual customer's use rather than the public.

3

4 However, the class of end-users that SolarCity has chosen to serve constitutes a significant
5 portion of the general public. Nor is it important that the generation equipment is located
6 on the end-user's premises since the generation equipment is not owned by the customer
7 and it utilizes a bidirectional meter that will make excess capacity available to the grid for
8 use by the general public. In response to STF 2.6, SolarCity states:

9

10 Any excess electricity will be physically supplied to the grid in
11 compliance with the applicable utility and/or ACC rules for
12 interconnection. Excess electricity will also be subject to and governed by
13 the applicable ACC net-metering rules.
14

15 While SolarCity argues that it does not provide electricity, when the SSA contracts are
16 considered as a whole, along with the SEIA, Staff concludes that they are more than a
17 mere financing mechanism and that they were instead intended as provisions for the
18 furnishing and sale of electricity.

19

20 **3) Articles of Incorporation, authorization, and purposes.**

21

22 **Q. What does SolarCity's Articles of Incorporation, authorization and purpose**
23 **provide?**

24 A. SolarCity is incorporated in the State of Delaware and has foreign authority to transact
25 business in Arizona. When filing with the Commission for foreign authority to transact
26 business, SolarCity also filed its Articles of Incorporation from Delaware. SolarCity's
27 Articles of Incorporation from Delaware indicate in Article III that "The purpose of the
28 Corporation is to engage in any lawful act or activity for which corporations may be

1 organized under General Corporations Law of Delaware.” Use of nonspecific language
2 such as this is not uncommon in Articles of Incorporation.

3
4 **Q. Was any other information related to SolarCity’s business included in its Application**
5 **for Authority to Transact Business in Arizona?**

6 A. Yes, but not much. Arizona’s Application for Authority to Transact Business in Arizona
7 includes a question, question number 10, which asks applicants to state “The character of
8 business the foreign corporation initially intends to conduct in Arizona...” SolarCity has
9 responded “Sales and Installation of PV Solar Systems.”

10
11 None of the incorporating documents reviewed by Staff explicitly state that SolarCity’s
12 purpose is to conduct the business of a public service corporation. However, Staff would
13 note that at the same time, the purpose language in the Articles of Incorporation does not
14 preclude SolarCity from conducting the business of a public service corporation either.

15
16 4) Dealing with the service of a commodity in which the public has generally
17 been held to have an interest.

18
19 **Q. Does SolarCity deal with the service of a commodity in which the public has an**
20 **interest?**

21 A. It would be difficult to conclude that the electricity generated under an SSA is different
22 than electricity provided by the incumbent utilities, and not a commodity in which the
23 general public has been held to have an interest. Certainly, the electricity generated from
24 a SolarCity solar panel will emanate entirely from a renewable source, while electricity
25 supplied from either APS or SRP will likely be generated in part from sources that are
26 non-renewable; however, the physical properties of the electricity from the Incumbent
27 Utility will be the same as that generated from the SolarCity solar panel. As such, energy

1 provided through a SolarCity SSA is a commodity that is comparable to energy provided
2 by an Incumbent Utility.

3
4 **Q. What does the Application say on this matter?**

5 A. SolarCity argues that the solar panel systems may be used by schools to produce
6 electricity, but that the SSA is fundamentally a financing tool. SolarCity also states that
7 the production of a commodity (electricity) is merely incidental to the purpose of the SSA
8 for a non-profit.¹⁴

9
10 **Q. What is Staff's response to this assertion?**

11 A. When the SSAs are considered in their entirety, it is clear that they are not mere financing
12 instruments but they extend to the provision of electricity. Electricity is a commodity in
13 which the public has generally been held to have an interest.

14
15 **5) Monopolizing or intending to monopolize the territory with a public**
16 **service commodity.**

17
18 **Q. Does Staff believe that SolarCity intends to monopolize the territories in which it**
19 **operates with a public service commodity?**

20 A. No. SolarCity likely does not intend to monopolize a territory with a public service
21 commodity. The Application includes a list of characteristics of SSAs with schools, non-
22 profits, and government agencies. One of the characteristics is: "While the electricity that
23 the solar panel system produces results in a reduction of the customer's overall demand
24 from the electric utility, the customer must remain connected to the utility grid.¹⁵" It is
25 necessary that customers retain the ability to receive utility service for a number of
26 reasons. Photovoltaic panels do not generate energy when the sun goes down and can

¹⁴ Application. at 13, lines 10-12.

¹⁵ Application, at 7, lines 3-5.

1 have a reduced ability to generate energy as a result of clouds or other meteorological
2 conditions. Furthermore, photovoltaic panels often produce enough energy to meet only a
3 portion of a customer's total electrical needs. While SolarCity is a for-profit entity and
4 will likely endeavor to obtain as many customers as possible, there is no indication that its
5 business model includes a monopolization of the provision of electricity in any given
6 service territory.

7
8 **Q. Are there other factors that would reduce the likelihood that SolarCity will**
9 **monopolize a territory with a public service commodity?**

10 A. Yes. SolarCity may very well have to compete with other SSA providers. The School
11 District's selection of SolarCity as an SSA provider was made through a request-for-
12 proposal process that included multiple applicants.

13
14 **Q. What does the Application say about this factor?**

15 A. SolarCity states that monopolization is not its intention and that it will be necessary for
16 customers to remain connected to the traditional utility grid because the solar panel system
17 output will not be sufficient to meet the customer's overall energy requirement.¹⁶

18
19 Staff agrees with SolarCity's assertion that it does not intend to achieve, nor will it be
20 likely to obtain, a monopoly position with respect to provision of electricity.

21
22 **6) Acceptance of substantially all requests for service.**

¹⁶ Application at 14, lines 3-12.

1 **Q. Does SolarCity intend to accept substantially all requests for service?**

2 A. Based on the Application, SolarCity plans to serve schools, governmental entities, and
3 other non-profits. Staff believes that SolarCity intends to offer its products and services
4 broadly, or publicly, rather than to a limited scope of customers. SolarCity's business plan
5 in Arizona is likely not isolated to the two school applications that are the subject of the
6 Application. SolarCity's website explains that "SolarCity was founded with the mission
7 to help millions of homeowners and businesses adopt solar power, protect themselves
8 from rising electricity costs and protect their environment from polluting power
9 sources."¹⁷ Similarly, the Application says, "The company's mission is to help millions of
10 homeowners, community organizations and businesses adopt solar power by lowering or
11 eliminating the upfront costs."¹⁸ SolarCity's business plan apparently considers
12 widespread expansion. On the matter of growth the website also explains, "Founded in
13 2006, SolarCity continues to grow, and now serves more than 500 communities in
14 California, Arizona and Oregon. If our services are not available in your area yet, we'll see
15 you soon. We plan to expand to 5-10 additional states in 2010 and be America's leading
16 provider of affordable, clean power for many years to come."¹⁹

17
18 SolarCity's business goal is to serve millions of customers and to subsequently grow to
19 service a substantial part of the public. Furthermore, with respect to SSAs, they will be
20 offered to a substantial portion of the public, e.g. schools, governmental entities and other
21 non-profit entities. In the context of this scope of service, SolarCity's services are
22 affected with a public interest.

¹⁷ <http://www.solarcity.com/media-center/company-profile.aspx>.

¹⁸ Application at 2-3.

¹⁹ <http://www.solarcity.com/media-center/company-profile.aspx>.

1 **Q. What does the Application say in regard to SolarCity's accepting substantially all**
2 **requests for service?**

3 A. In the Application, SolarCity states that it will not accept every request for service.
4 SolarCity states that it will evaluate each potential customer on the basis of building and
5 property orientation and land use and zoning rights affecting the customer's private
6 property. SolarCity also states that, because the SSA will only be available to a small
7 distinct subset of potential customers, regulation is not appropriate.²⁰

8
9 **Q. What is Staff's response to this assertion?**

10 A. Staff would point out that SolarCity has not provided evidence that the number of
11 potential customers is a small distinct subset of potential customers. To the contrary,
12 SolarCity appears to seek this adjudication for the specific purpose of serving not only
13 other schools but also non-profit entities and government institutions.

14
15 **7) Service under contracts and reserving the right to discriminate is not**
16 **always controlling.**

17
18 **Q. Is it Staff's understanding that SolarCity will provide service pursuant to contract?**

19 A. The Application states that SolarCity will not be accepting requests for service from the
20 general public and that SolarCity utilizes very specific and detailed contracts for service.²¹
21 At the same time, the Application also states, "The company's mission is to help millions
22 of homeowners, community organizations and businesses adopt solar power by lowering
23 or eliminating the upfront costs."²²

24

²⁰ Application, at 14, lines 17-26.

²¹ Application, at 16, lines 1-3.

²² Application, at 2-3.

1 Given that SolarCity's goal is to acquire millions of customers, the number of customers
2 that may actually not qualify for service by SolarCity may be de minimis. In addition, the
3 SSAs utilized by SolarCity are designed to reach a significant portion of the general
4 public: schools, nonprofits and governmental entities.

5
6 **Q. What does the Application say in regard to the use of contracts to provide service?**

7 A. SolarCity states that it would provide services through very detailed and specific
8 agreements. SolarCity further states that the fact that individual contracts are required is a
9 factor that weighs in favor of finding that the SSA in this instance does not require
10 regulation.²³

11
12 **Q. What is Staff's response to this assertion?**

13 A. Staff does not agree that the provision of service under specific agreements is dispositive
14 of this issue. Staff believes that, in the case of the SolarCity SSAs, the possibility of
15 exclusion of service is eclipsed by the wide solicitation that would accompany a business
16 model that intends to provide service to millions and by the nature of the service that
17 SolarCity intends to offer.

18
19 **8) Actual or potential competition with other corporations whose business is**
20 **clothed with the public interest.**

21
22 **Q. Will SolarCity compete with other corporations whose business is clothed with the**
23 **public interest?**

24 A. Yes. SolarCity SSAs would deliver electricity whose physical properties are substantially
25 similar to that of the Incumbent Utilities. Electrons that would enter the service panels of
26 the schools from either the SolarCity solar panel or from the Incumbent Utility would be

²³ Application, at 15, lines 1-7.

1 indistinguishable. Energy provided from the solar panel would displace energy required
2 from the utility. Energy provided from the solar panel would, therefore, serve as an
3 alternative to energy provided by the Incumbent Utility during the periods of time in
4 which the solar panels are able to produce electricity. While it is apparently not
5 SolarCity's intention to entirely supplant the need for service by an Incumbent Utility, it
6 does appear that service provided by SolarCity through an SSA would compete with
7 service provided by the Incumbent Utility during periods of time in which the solar panels
8 are able to produce electricity.
9

10 **Q. Are APS and SRP entities whose business is clothed with the public interest?**

11 A. Yes.
12

13 **Q. Did the school district perform a cost-benefit analysis to assess whether it would
14 realize savings through a SolarCity SSA?**

15 A. Yes. Furthermore, it is Staff's belief that performance of a cost-benefit analysis is an
16 indication that the energy provided by SolarCity through SSAs would be an alternative to
17 energy provided by the Incumbent Utilities and that competition would exist between
18 SolarCity and the Incumbent Utilities as providers of energy during the hours that solar
19 energy is capable of being produced.
20

21 **Q. What does the Application say about whether SolarCity will compete with other
22 utilities?**

23 A. SolarCity states that it would provide a fundamentally different service than Incumbent
24 Utilities as it does not propose to provide its customers with baseload electricity.

1 **Q. What is Staff's response to this assertion?**

2 A. Staff agrees that it will be necessary for SSA customers to retain service by their
3 Incumbent Utilities. Staff agrees that customers would likely need to receive the bulk of
4 their energy needs from their Incumbent Utilities. However, SolarCity's assertion that
5 baseload electricity would be provided by the Incumbent Utility is an artificial distinction
6 and really has no bearing on the question of whether SolarCity would be competing
7 against the Incumbent Utilities. An electron entering into the electric panel at a school
8 would be indistinguishable from an electron entering from the Incumbent Utility.
9 Whether a given electron is generated by baseload or non-baseload facilities has little
10 meaning as it is impossible to associate provided electricity with use by a given appliance
11 at a school. Because the electrons themselves are indistinguishable, and because increased
12 provision of energy from the solar panels would offset the provision of energy from the
13 Incumbent Utility, SolarCity would compete with Incumbent Utilities.

14

15 **Q. Has Staff compared some of the features that typically characterize the service of**
16 **incumbent electric utilities compared to those SolarCity?**

17 A. Yes.

18

19 **Q. Please list some of these features that Staff believes are characteristics of the**
20 **incumbent Utilities that are in common with SolarCity.**

21 A. Both provide electricity from generation sources. Both sell electricity to retail customers
22 on a per kWh basis. Both own, install and maintain their own facilities. Both install and
23 read meters for use in billing customer's usage.

1 **Q. Does Staff draw any conclusions from these similar characteristics?**

2 A. Yes. Incumbent electric utilities and SolarCity SSAs have many of the same
3 characteristics. Therefore, Staff believes that these facts support the conclusion that
4 SolarCity would be a public service corporation in its provision of service through SSAs.
5

6 **VII. IMPACT OF PROVIDING SERVICE AT WHOLESALE**

7 **Q. Are wholesale providers of electricity not public service corporations?**

8 A. Not always.
9

10 **Q. Is this example useful in consideration of the SolarCity Application?**

11 A. Yes. Apparently SRP has represented to SolarCity that, if this transaction were structured
12 as a wholesale sale of power, the Commission would lose its jurisdiction over the SSA.
13 SolarCity has provided a proposed agreement it has been negotiating with SRP to the Staff
14 in response to STF 7.3. In response to STF 7.6 (What governmental agencies does
15 SolarCity believe would have jurisdiction over such an arrangement?) SolarCity states:

16
17 The Federal Energy Regulatory Commission ("FERC") has jurisdiction
18 over the sale of electric energy from SolarCity to SRP pursuant to Section
19 201 of the Federal Power Act ("FPA"). The solar panel system
20 ("Facility") will be a "qualifying small power production facility" ("QF")
21 as defined in Section 3(17)(C) of the FPA and Section 292.204 of the
22 FERC's regulations under the Public Utility Regulatory Policies Act of
23 1978 ("PURPA"). Since the Facility will be a QF with a capacity of 20
24 MW or less, Solar City will be largely exempt from the Federal Power
25 Act.

1 **Q. Could SolarCity enter into an agreement with an Incumbent Utility to provide**
2 **energy at wholesale to the Incumbent Utility so that it might be resold to schools,**
3 **non-profits and governments?**

4 A. As discussed, SolarCity is negotiating such an agreement with SRP. Staff is evaluating
5 the proposed agreement between SRP and SolarCity and the School District at this time.
6 Staff has not formulated an opinion on this question at this time.
7

8 **VIII. OWNERSHIP OF RENEWABLE ENERGY CREDITS**

9 **Q. What are Renewable Energy Credits?**

10 A. A "Renewable Energy Credit" ("REC") is a kind of accounting unit created to track kWh
11 derived from an Eligible Renewable Energy Resource or kWh equivalent of Conventional
12 Energy Resources displaced by Distributed Renewable Energy Resources as described in
13 Arizona Administrative Code ("A.A.C.") Title 14, Article 18. The Commission's
14 Renewable Energy Standard and Tariff rules require that certain public service
15 corporations serving retail electric load in Arizona obtain RECs from Distributed
16 Renewable Energy Resources. Distributed Renewable Energy Resources are applications
17 of certain defined technologies that are located at a customer's premises and that displace
18 Conventional Energy Resources that would otherwise be used to provide electricity to
19 Arizona customers. An accounting of RECs is used to determine if a given utility has met
20 the Distributed Renewable Energy Resources requirements contained in the Renewable
21 Energy Standard and Tariff rules.
22

23 **Q. How are RECs relevant to SolarCity's Application?**

24 A. The SSAs between SolarCity and the Scottsdale Unified School District for Desert
25 Mountain High School and Coronado High School specify that the Environmental
26 Incentives and Environmental Attributes accrue to the Purchaser (Scottsdale Unified

1 School District). RECs are Environmental Attributes. This characteristic of the SSAs was
2 set forth through the filing of an Amended Exhibit by SolarCity on August 5, 2009. It is
3 necessary that the RECs accrue to the Purchaser rather than SolarCity in order for the
4 Purchaser to transfer the RECs to Arizona Public Service Company ("APS") in order to
5 satisfy a requirement of APS' Renewable Energy Standard and Tariff. APS' Renewable
6 Energy Standard and Tariff Implementation Plan requires that APS receive RECs when it
7 makes incentive payments for distributed generation. That requirement from the APS
8 Renewable Energy Standard and Tariff Implementation Plan is as follows:

9 4.5 REC Ownership

10 As part of APS's payment of a UFI, the utility will be given complete and
11 irrevocable ownership of all RECs expected from system production for
12 20 years, the expected or planned effective life of the DE system. APS's
13 payment of a PBI will assure APS complete and irrevocable ownership of
14 the REC for the full duration of the PBI agreement. Renewable Energy
15 Credits provided to APS as a result of a DE system installation will be
16 applied towards APS' RES targets.
17

18 In a July 23, 2009 letter to the Docket, APS wrote the following on the matter of the need
19 for APS to obtain ownership of RECs when an incentive payment is made for a distributed
20 energy system:

21
22 The mechanism through which APS pays an incentive to its customer,
23 pursuant to the Renewable Energy Standard Rules, is an agreement with
24 its customer that assures that the customer will provide all environmental
25 attributes to the Company (APS) in exchange for the incentive.
26

27 **Q. How do the Desert Mountain and Coronado contracts treat RECs?**

28 A. The SSA contracts, as amended, designate the RECs as accruing to the Purchaser
29 (Scottsdale Unified School District). This allows the RECs to be transferred to APS from
30 the Purchaser and facilitates incentive payments from APS. As explained by SolarCity

1 witness Lyndon Rive (testimony at Q. 20), in exchange, the utility will pay SolarCity any
2 applicable incentive rebate payments.

3

4 **IX. OTHER CONSIDERATIONS**

5 *A. Tax Issues Raised by SolarCity*

6 **Q. What is Staff's comment about Item 10 of Lyndon Rive's testimony that includes the**
7 **following question and response:**

8

9

What services does SolarCity furnish under an SSA?

10 SolarCity finances, designs, constructs, owns, operates and maintains the
11 solar system for the benefit of the customer.

12

13 *A.* This is likely true. But, it is also true that in order to use the available tax incentives,
14 the SSA must be structured as a sale of electricity. As such, the Commission's
15 oversight is directly implicated. SolarCity simply cannot represent the SSA to be a
16 financing to achieve a certain result with the Commission, and then turn around and
17 represent the same SSA as a sale of electricity to achieve yet a different result with the
18 IRS. To be able to obtain the significant tax incentives, the parties' had to structure
19 their agreement as a sale of electricity. Thus, to obtain one benefit, SolarCity may
20 have given up another.

21

1 **Q. What is Staff's comment about Item 15 of Lyndon Rive's testimony that includes the**
2 **following question and response:**

3
4 **What is the primary purpose of an SSA?**

5 The primary purpose of an SSA is to provide financing for the adoption of
6 a solar system with zero up-front capital costs by allowing a third party to
7 capitalize on available Federal tax incentives that would otherwise be lost.
8

9 A. Again, this is probably true to some extent. But, to get the tax benefits, they structured
10 the agreement as one for the sale of electricity.

11
12 B. *Impact of Regulation in Arizona*
13

14 **Q. SolarCity Witness Lyndon Rive expresses concern about the impact of regulation on**
15 **the development of the solar industry in Arizona. What is Staff's response to this**
16 **concern.**

17 A. Item 25 from Lyndon Rive's testimony includes the following question and response:

18
19 **What would be the likely effect of industry regulation in AZ on**
20 **SolarCity and on the participation of 3rd party investors?**

21 Regulation is likely to drive out numerous, if not all, solar providers from
22 the State of Arizona. SolarCity's profits and its investor's returns would
23 suffer causing them to look to other less expensive States for solar
24 investment. The bottom line is that the customer, if they had any options
25 left, would pay more and have far fewer providers to choose from. It
26 would be devastating for the advancement of solar in Arizona.
27

28 It is speculative to say what other companies would do. More importantly, light-
29 handed regulation is likely to have only nominal costs that would not produce negative
30 results. Staff believes that regulation could be applied in this instance to encourage the
31 development of this nascent industry.

1 **Q. Does Staff believe it is possible to structure meaningful oversight while at the same**
2 **time to encourage the development of this nascent industry?**

3 A. Yes. As discussed below, Staff is recommending that minimal regulation be applied to the
4 SSAs used by SolarCity, if the Commission were to conclude that SolarCity is a public
5 service corporation.

6
7 **Q. What responses does Staff have in regard to the testimony of Scottsdale Unified**
8 **School District witness David Peterson?**

9 A. Staff disagrees only with portions of the discussion contained in question and answer
10 number 13 of David Peterson's testimony. Staff agrees with all other information
11 contained in David Peterson's testimony.

12
13 **Q. What information is included question and answer 13?**

14 A. The question and answer are as follows:

15
16 **Does the District feel that the proposed SSA arrangement requires**
17 **oversight from the Commission to protect the Districts interests?**
18 No. If we owned the system ourselves we would not be regulated. Our
19 public interest is adequately protected by the RFP process and market
20 competition. Regulation is likely against the public interest because it
21 would increase costs and therefore decrease savings. Future responses
22 would be limited due to regulation and prices quoted would be at a higher
23 price due to the costs associated with regulation.

24
25 **Q. On what parts of this question and answer would Staff comment?**

26 A. Staff has not concluded that regulation would increase the costs of SSAs in a significant
27 way. It is possible that a form of light-handed regulation could be structured with only
28 nominal costs to SSA providers.

29

1 **X. COMMISSION RULES AS APPLIED TO SOLAR CITY**

2 **Q. Does the Commission regulate all utilities in the same fashion and to the same**
3 **degree?**

4 A. No. The Commission regulates a variety of utility industries. They include electric
5 utilities, gas utilities, water utilities, telephone utilities, and sewer utilities. Within each
6 industry, there are different kinds of providers and different kinds of services that are
7 offered. In the typical context, a public service corporation is engaged in providing a
8 commodity that is fundamental to the public health and welfare, such as electric, gas,
9 water, sewer, or telecommunications service. The public service corporation invests in the
10 plant and facilities necessary to provide service, and often provides "bundled" services.
11 Typically, a public service corporation operates in a monopoly context. However, not all
12 public service corporations share each of these characteristics. For example, many
13 competitive telecommunications providers such as resellers, competitive local exchange
14 providers, Coin Operated Pay Telephones, and others are subject to regulation. These
15 various telecommunications entities operate in a competitive context, yet are still subject
16 to some level of Commission regulation.

17

18 **Q. Could the Commission regulate SolarCity in a stream-lined fashion?**

19 A. Yes.

20

1 **Q. What method does Staff recommend that the Commission use for regulation of**
2 **SolarCity should the Commission determine that SolarCity is functioning as a public**
3 **service corporation when providing solar service to Arizona schools, governments,**
4 **and non-profit entities?**

5 A. Staff recommends that light-handed regulation apply to SolarCity in its provision of SSAs
6 as Staff concludes that it would be functioning as a public service corporation under these
7 circumstances, but would be providing service in a way that is different from traditional
8 electric utilities. Although this proceeding is not the appropriate vehicle for developing
9 the details of an appropriately light-handed regulatory treatment, certain examples from
10 the telecommunications industry provide helpful starting points.

11

12 **Q. Under Arizona statutes, should a public service company obtain a CC&N prior to**
13 **operation?**

14 A. Yes.

15

16 **Q. Is Staff recommending that SolarCity receive a CC&N prior to operation?**

17 A. No. However, SolarCity should apply for a CC&N. SolarCity would be allowed to
18 operate pursuant to Commission-approved contracts until the Commission completes its
19 review of the CC&N application.

20

21 **Q. Is it Staff's view that SolarCity should be subject to other rules and regulations that**
22 **apply to traditional electric utilities if found to be a public service corporation when**
23 **providing service to schools, non-profits, and governments under SSAs?**

24 A. It is not Staff's intention that every rule and regulation that applies to traditional electric
25 utilities would also apply to SolarCity.

26

1 The Commission may consider waivers to rules as it deems appropriate in this matter
2 should the Commission choose to do so.

3
4 **Q. Would all of the energy supplied under an SSA be generated from renewable**
5 **resources?**

6 A. Yes.

7
8 **Q. What is the purpose of the REST rules?**

9 A. The REST rules promote the use of renewable energy, such as sun and wind power, in
10 place of sources that are non-renewable in nature, such as natural gas, coal, oil, and
11 uranium.

12
13 **Q. Since SolarCity provides only renewable energy through SSAs, should the REST**
14 **rules apply to SolarCity in its operation of SSAs?**

15 A. No. Application of the REST rules to SolarCity would not result in the displacement of
16 energy from non-renewable sources.

17
18 **Q. Is Staff recommending that SolarCity be granted a waiver of the REST rules for its**
19 **SSA operations?**

20 A. If the Commission is inclined to grant a waiver of the REST rules for SolarCity's SSA
21 operations, Staff is not opposed to such a waiver of the REST rules.

22
23 **Q. Could there be other rules for which SolarCity should be granted a waiver?**

24 A. Yes. SolarCity can recommend waivers of other rules within the CC&N proceeding.

1 **Q. In the framework of light-handed regulation, will the Commission have the ability to**
2 **oversee and account for the corresponding production of energy?**

3 A. The Commission would have the ability to manage the proliferation of SSAs indirectly
4 through the Commission's oversight of Renewable Energy Standard and Tariff ("REST")
5 implementation plans. The SSAs proposed in the Application are dependent on incentives
6 provided from incumbent utilities. In the case of Desert Mountain High School,
7 incentives would be provided by APS. These incentives are made possible by APS' REST
8 implementation plan. APS' REST implementation plan is filed annually with the
9 Commission for its approval. The Commission may make use of the opportunity that
10 arises with the annual filing of REST implementation plans to make adjustments to REST
11 budgets, incentive levels, and to add or adjust provisions that relate to incentives made for
12 distributed generation such as the SSAs. In this way the Commission may indirectly
13 oversee and account for solar energy production through the SSAs.

14
15 **Q. Why would the Energy Production of SSAs need to be taken into account?**

16 A. Because this may impact the overall need for the Incumbent Utility's energy and the price
17 authorized by the Commission for that energy, the Commission will likely want to be able
18 to obtain accurate measures of its availability and use.

19
20 **XI. SUMMARY OF STAFF CONCLUSIONS**

21 **Q. Please summarize Staff's conclusions?**

22 A. Based upon the evidence, Staff's conclusions are as follows:

- 23 • Through its contracts with nonprofits, schools and governmental entities, SolarCity
24 would provide electricity to the public for a profit.

- 1 • Staff believes that the SSAs have been structured as sales of electricity so that
2 SolarCity and the schools could take advantage of federal tax incentives, which the
3 schools otherwise did not qualify for.
- 4 • The provisions of the SSAs as a whole support Staff's position that the contracts
5 are primarily for the sale of electricity to the schools.
- 6 • The contracts provide for the customer to pay SolarCity under the SSAs on a kWh
7 basis.
- 8 • The facilities installed by SolarCity will be owned, operated, and maintained by
9 SolarCity throughout the life of the contract unless the schools exercise an option
10 to purchase the system at years 6 or 10 of the contract or at the end of the SSA's
11 life, year 15 of the contract.
- 12 • The public has an interest in SolarCity's facilities in that the facilities are dedicated
13 to supplying electricity to the public. In addition electricity generated in excess of
14 the schools' own need at a given time would flow through the grid and could be
15 available for public use.
- 16 • The electricity produced under an SSA is no different than electricity provided by
17 the Incumbent Utilities, a commodity in which the general public has been held to
18 have an interest.
- 19 • While SolarCity will provide its services through individual contract, this is not
20 dispositive of the issue of whether it is functioning as a public utility. It is more
21 the nature of the services it offers, and the fact that it offers its services to the
22 public.
- 23 • SolarCity intends to serve a substantial portion of the public. SolarCity will
24 compete with other public service corporations.

1 **XII. SUMMARY OF STAFF RECOMMENDATIONS**

2 **Q. Please summarize Staff's recommendations.**

3 A. Staff recommends the following:

- 4 • That should the Commission find that SolarCity is acting as a public service
5 corporation, the Commission continue to require SolarCity to provide its special
6 contracts or a tariff with a standard contract to the Commission for review and
7 approval until the Commission approved a CC&N for SolarCity.
- 8 • That should the Commission find that SolarCity is acting as a public service
9 corporation, SolarCity should be required to apply for a CC&N.
- 10 • That the Commission's findings in this matter apply only to SolarCity's SSAs for
11 schools, nonprofits and governmental entities. Determinations on other contracts
12 or sales should be made upon separate application.

13

14 **Q. Does this conclude your Direct Testimony?**

15 A. Yes, it does.