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MEMORANDUM

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FROM: Ernest G. Johnson
Director
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DATE: March 11, 2009

RE: STAFF REPORT FOR THE SOLAR ALLIANCE APPLICATION FOR A DECLARATORY ORDER THAT PROVIDERS OF CERTAIN SOLAR SERVICE AGREEMENTS WOULD NOT BE PUBLIC SERVICE CORPORATIONS (DOCKET NO. E-20633A-08-0513)

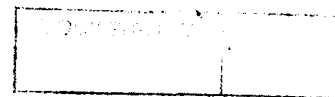
Attached is the Staff Report for The Solar Alliance application for a Declaratory Order that providers of certain solar service agreements would not be public service corporations. Staff recommends that a hearing should be held in this matter.

EGJ:SPI:red

Originator: Steve Irvine

Attachment: Original and Thirteen Copies

Arizona Department of Transportation
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Service List for: The Solar Alliance
Docket No. E-20633A-08-0513

Ms. Deborah R. Scott
Ms. Linda J. Benally
Pinnacle West Capital Corporation
400 North 5th Street, MS 8695
Phoenix, Arizona 85004-8695

Mr. Timothy M. Hogan
Arizona Center for Law in the Public
Interest
202 East McDowell Road, Suite 153
Phoenix, Arizona 85004

Mr. David Berry
Western Resource Advocates
PO Box 1064
Scottsdale, Arizona 85252-1064

Mr. Kenneth C. Sundlof, Jr.
Jennings, Strouss & Salmon, Plc
201 E. Washington Street, 11th Floor
Phoenix, Arizona 85004-2385

Mr. Scott S. Wakefield
Ridenhour, Heinton, Kelhoffer & Lewis,
P.L.L.C.
201 North Central Avenue, Suite 3300
Phoenix, Arizona 85004-1052

Mr. Lawrence V. Robertson, Jr.
PO Box 1448
2247 East Frontage Road
Tubac, Arizona 85646-1448

Mr. Daniel W. Pozefsky
Chief Counsel
Residential Utility Consumer Office
1110 West Washington Street, Suite 220
Phoenix, Arizona 8507-2958

Mr. Russell E. Jones
Waterfall Economidis Caldwell Hanshaw &
Villamana, P.C.
5210 East Williams Circle, Suite 800
Tucson, Arizona 85711-4482

Mr. Michael A. Curtis
Mr. William P. Sullivan
Mr. Ian D. Quinn
Curtis, Goodwind, Sullivan, Udall &
Schwab, Plc
501 East Thomas Road
Phoenix, Arizona 85012-3205

Mr. C. Webb Crockett
Mr. Patrick J. Black
Fennemore Craig, P.C.
3003 North Central Avenue, Suite 2600
Phoenix, Arizona 85012-2913
Attorneys for Freeport-McMoran and AECC

Ms. Jana Brandt
Mr. Kelly Barr
Regulatory Affairs and Contracts
Salt River Project
Mail Station PAB221
P.O. Box 52025
Phoenix, Arizona 85072-2025

Mr. Philip J. Dion
Ms. Michelle Livengood
Dave Couture
Unisource Energy Company
One South Church Avenue, Suite 200
Tucson, Arizona 85701-1623
Attorneys for TEP and UNS Electric

Mr. Michael M. Grant
Gallagher & Kennedy, P.A.
2575 East Camelback Road
Phoenix, Arizona 85016-9225
Attorneys for AEPCO

Mr. Kevin T. Fox
Keyes & Fox LLP
5727 Keith Avenue
Oakland, CA 94618

Mr. Michael W. Patton
Mr. J. Matthew Derstin
Roshka, Dewulf & Patten, PLC
400 E. Van Buren, Suite 800
Phoenix, Arizona 85004

Mr. Bradley S. Carroll
Snell & Wilmer, LLP
One Arizona Center
400 E. Van Buren
Phoenix, AZ 85004-2202
Attorneys for SSVEC

Ms. Janice Alward
Chief, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

THE SOLAR ALLIANCE
DOCKET NO. E-20633A-08-0513

**APPLICATION FOR A DECLARATORY ORDER THAT PROVIDERS OF CERTAIN
SOLAR SERVICE AGREEMENTS WOULD NOT BE PUBLIC SERVICE
CORPORATIONS**

MARCH 11, 2009

STAFF ACKNOWLEDGMENT

The Staff Report on the Solar Alliance's application for a declaratory order that providers of certain solar service agreements would not be public service corporations, Docket No. E-20633A-08-0513, was the responsibility of the Staff members listed below.

A handwritten signature in black ink, appearing to read "Steve Irvine", with a long horizontal flourish extending to the right.

Steve Irvine
Public Utility Analyst IV

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INTRODUCTION

Background

On October 3, 2008, the Solar Alliance (“Solar Alliance”) filed with the Arizona Corporation Commission (“Commission”) an application (“Application”) for a declaratory order that providers of certain solar service agreements (“SSAs”) would not be public service corporations. A Procedural Order was issued on January 12, 2009, that directed Commission Staff to file a Staff Report on the Application on or before March 6, 2009. The Procedural Order does not set a hearing date, but directs Staff to indicate in the Staff Report whether Staff believes there are disputed issues of fact at the time the Staff Report is filed. The Procedural Order further directs Staff to make a recommendation to the Commission regarding the need for a hearing.

The Application describes the Solar Alliance as an alliance of solar manufacturers, integrators and financiers dedicated to accelerating the development of photovoltaic energy in the United States. In response to a data request, the Solar Alliance indicated that the members of the Solar Alliance (in the context of the instant application) are American Solar Electric; Applied Materials; Borrego Solar; BP Solar; Conergy; Dow-Corning; Energy Innovations; Evergreen Solar; First Solar; Iberdrola Renewables; Kyocera; Mainstream Energy; Mitsubishi Electric; MMA Renewable Ventures; Oerlikon Solar; Sanyo; Schott Solar; Sharp Solar; Solar City; Solaria; Solar Power Partners; SolarWorld; SPG Solar; SunEdison; SunPower; Suntech; Tioga Energy; Trinity Solar; Uni-Solar; and Xantrex. The data response clarifies that the applicant in this docket is the Solar Alliance and not its individual members. Because the applicant in this matter is an industry organization, as opposed to a service provider, the application does not contain any information about the articles of incorporation, purposes, or other corporate authorizations for any of the Solar Alliance’s individual members.

The Solar Alliance explains in response to a data request that it is seeking adjudication for a narrowly defined business model, rather than an adjudication for its members specifically or any other entity. The Solar Alliance does not intend to provide services under SSAs.

The business model for which the Solar Alliance seeks a declaratory order involves the installation of solar photovoltaic equipment at a customer’s premises for the generation and delivery of electricity for the customer’s use. According to the Solar Alliance’s application, the SSA provider “finances, owns, maintains and operates” the solar photovoltaic (“PV”) system.¹ Either the SSA provider or a third-party lender also receives any tax credits associated with the equipment. This model allows customers to access solar photovoltaic equipment with much, or all, of the up-front costs associated with purchase of the equipment born by someone other than the customer. In other words, a customer entering into an SSA, as described by the Application, would typically not pay the up-front costs for purchase and installation of the solar photovoltaic equipment.

¹ Application at 7.

The Solar Alliance seeks a declaratory order only for SSAs that install solar photovoltaic systems. The Solar Alliance does not seek a declaratory order for SSAs that install any other sort of generation, whether it be a renewable energy type, such as solar thermal, or conventional generation, such as natural gas-fired generation.

The Application suggests that there is uncertainty as to whether providers of SSAs are subject to regulation by the Commission as public service corporations, and further suggests that this uncertainty will hamper the growth of distributed solar power in Arizona. The Solar Alliance explains that for this reason it is seeking a declaratory order that providers of SSAs that conform to certain criteria are not public service corporations, and are not subject to the Commission's regulation. The application, however, does not specifically address how or to what degree the growth of distributed solar power has been hampered.

The Application appears to be more like a legal brief than factual testimony. The section entitled "Facts Upon Which the Application is Based" on pages six through eight is a list of the twelve characteristics that the Solar Alliance proposes as facts in support of the requested declaration. The Application then offers legal arguments that providers of SSAs with those characteristics are not public service corporations and are therefore not subject to regulation by the Commission.

This Staff report provides Staff's analysis of the factual aspects of the Application. It is limited to a discussion of the factual aspects of the proposal. The report does not respond to the Application with comment on the legal merits of the arguments contained in the Application and does not offer legal conclusions. Staff believes that the ultimate issue at question in the application calls for a legal conclusion, and we anticipate that the legal arguments will be analyzed and addressed by the parties in the briefing process. The purpose of this report is to lay a factual background for that legal analysis.

Summary of the Renewable Energy Standard and Tariff

The Commission adopted the Renewable Energy Standard and Tariff ("REST") Rules on November 14, 2006, in Decision No. 69127. The REST Rules require load-serving entities to derive a portion of the retail energy they sell from renewable technologies, defined as "Eligible Renewable Energy Resources" (A.A.C. R14-2-1802). A.A.C. R14-2-1802 defines Renewable Energy Resources as energy resources that are replaced rapidly by a natural, ongoing process and that is not nuclear or fossil fuel. Eligible Renewable Energy Resources include solar generation from either photovoltaic or solar thermal devices, among other things. The portfolio percentage requirement increases annually. The requirement was 1.25 percent initially in 2006, 1.5 percent in 2007, 1.75 percent in 2008, and will be 2 percent in 2009. The requirement rises incrementally until reaching 15 percent for all years following 2024.

The REST Rules require the increased use of energy derived from renewable resources. This increased use of renewable energy offsets energy that would otherwise be generated from nuclear or fossil fuels. There are many advantages associated with the use of renewable

resources rather than conventional nuclear or fossil fuel generation. Generally, these advantages include reduced reliance on foreign-sourced fuels, displacing generation that relies on finite fuel resources, and environmental considerations.

The REST Rules include energy generated from solar photovoltaic generation as an eligible source from which to meet the requirements. More particularly, the REST Rules include a Distributed Renewable Energy Requirement. The Distributed Renewable Energy Requirement is contained in A.A.C. R14-2-1805. The Distributed Renewable Energy Requirement requires that a portion of the renewable energy requirements contained in the rules be met from certain approved generation technologies located at a customer's premises that displace conventional energy resources that would otherwise be used to provide electricity to Arizona customers. The approved generation technologies include solar photovoltaic generation.

The SSAs contemplated in the Solar Alliance Application would facilitate the increased use of photovoltaic generation, which in turn would provide an additional means for electric utilities to meet the Distributed Renewable Energy Requirements. The SSAs proposed by the Solar Alliance would appear to be consistent with recent Commission policy goals that have been pursued through the REST Rules. Staff fully supports efforts to make solar facilities more generally available to the public.

STAFF'S ANALYSIS

Description of Operation of SSAs

The Solar Alliance enumerates the characteristics of SSAs for which it seeks a declaratory order.² The characteristics are as follows:

- An SSA provider finances, installs, owns, maintains and operates a solar PV facility that is located on a customer's premises and generates electricity using solar power.
- The customer provides its premises for the solar facility.
- The SSA provider provides a number of services to the customer as part of the single package, including analysis of the customer's load characteristics, sizing and placement of the solar facility on the customer's premises, financing of costs of acquiring the solar facility, monetizing tax credits related to the solar facility, ongoing maintenance of the solar facility, and electric output of the solar facility.
- The customer's charges for all of the services under the SSA are computed as a price per kWh for the entire package of services (prices are not broken out by individual service provided).
- The customer charges are computed based on power actually produced by the solar facility.

² Application at 7-8.

- The customer must remain connected to the utility grid and generally continues to purchase power from the customer's electric utility. Energy produced by the solar facility reduces the energy provided to the customer by the electric utility.
- Facilities operate in parallel with an electric utility's existing transmission and distribution facilities.
- The customer purchases the full output generated by the facility at agreed upon prices.
- Due to practical limitations such as available surface area for facility installation, the electricity generated on-site typically serves less than the customer's total annual electrical load.
- The SSA provider owns the solar facility throughout the term of the SSA, but a customer may have an option of purchasing a facility during the term of the agreement.
- The SSA provider negotiates an individualized price with each customer taking into account factors such as the cost of the solar facilities, the cost of installation, the surface area available for an installation, the efficiency of a solar array and its orientation and tilt, the price paid for electricity from a local utility, and any other values such as those provided by renewable energy credits.
- At the time an SSA is entered, the customer's billing rate for the services to be provided is established for the term of the contract.

Staff inquired of the Solar Alliance whether its proposal envisions a declaratory order that applies only to SSAs with all twelve of these characteristics, or whether it envisions that the declaratory order could apply to SSAs with only some of the characteristics. The Solar Alliance responded that it believes that the vast majority of SSAs would meet all twelve characteristics. The Solar Alliance characterized its request as "proposing a set of guidelines that, if followed, would provide a reasonable assurance that regulation as a public service corporation could be avoided if there were to be a challenge to an SSA provider's non-public service corporation status." The Application provides the list of twelve characteristics that it proposes as a means to define the SSAs and asks that the Commission specifically declare that entities meeting those twelve characteristics are not public service corporations.

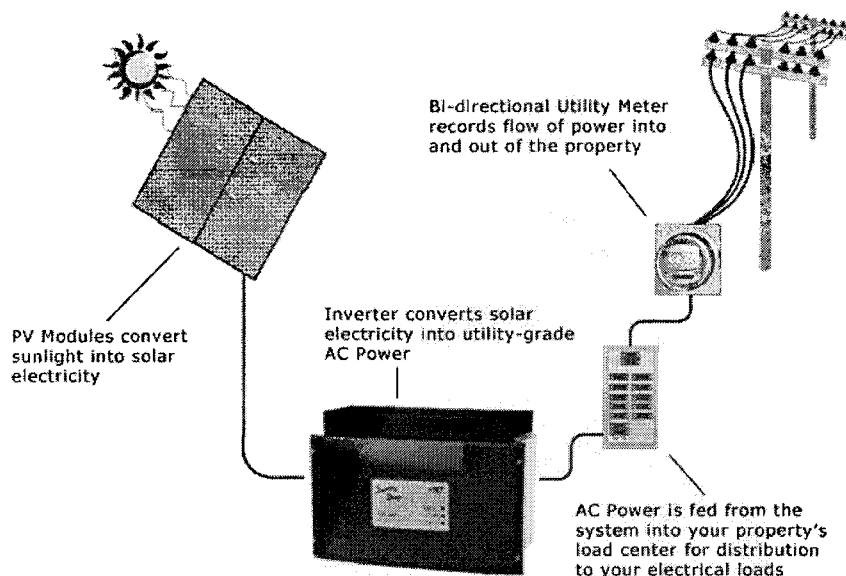
The following is a description of the operation of the contemplated SSAs as described to Staff by the Solar Alliance through responses to data requests. The description includes discussion of the physical aspects of the equipment involved, treatment of generation of energy beyond the SSA customer's own use, safety considerations of the interconnection with the grid, and the financial aspects of the SSA.

Physical Aspects of the Equipment and Treatment of Excess Energy

The equipment that would be installed under a typical SSA includes photovoltaic solar panels, mounting structures, wiring and conduit, direct current ("DC") to alternating current ("AC") electricity inverters, inverter mounting equipment, and disconnect switches. The photovoltaic system is connected to an inverter that changes DC electricity into AC electricity

that can be used on site. The inverter is connected to the service entrance where the energy is sent to the customer's home or building for use. The customer remains connected to the utility grid and generally continues to purchase power from the utility. The solar facilities operate in parallel with the utility's existing transmission and distribution facilities. That is, the customer load has separate connections to both energy sources, but is connected in such a way that electricity from the grid is used only if sufficient electricity from the solar system is not available. The inverter makes sure that all solar energy is utilized on site before any energy from the utility grid is utilized. If the photovoltaic system is producing more energy than is needed by the customer, the additional energy is fed back into the grid through a bi-directional utility meter. Further, the inverter in a grid-tied photovoltaic system is designed to shut down immediately if power from the grid is interrupted. Any customer who attempted to disconnect from the grid would not be able to utilize energy from the solar system.

The Solar Alliance provided the following general diagram depicting the configuration of the system under a typical SSA:



The SSA provider generates electricity through the solar facility and delivers all of the energy generated to the SSA customer. According to the terms of the SSA, the SSA customer buys all the output of the solar generating facility. Although it is not shown on the Solar Alliance's diagram, it is Staff's understanding that a dedicated photovoltaic system kWh meter measures the power generated by the solar facility before it reaches the service entrance or load center. Any excess energy is sent to the grid, and it is the SSA customer that is credited by the electric utility for any excess power under a net metering arrangement. The SSA provider, as described in the Application, would not sell any excess electricity to the incumbent utility.

An SSA would be unlikely to enable a customer to forego service from a traditional electric utility because, due to the intermittent nature of solar, it is unlikely that the system would be able to meet the customer's entire load, particularly during times of no sun. Customers would therefore likely remain connected to incumbent providers.

Safety Considerations

The interconnection of outside generation equipment with a utility's distribution system can raise safety concerns. Those concerns include the stability of the grid, and the physical safety of the general public, utility workers, and those living or working at the premises where the generation is installed. Electric utilities in Arizona have Commission-approved tariffs that establish the terms of service that apply to the utility and ratepayer. These tariffs address a variety of matters; however, they do not commonly specifically address the interconnection of generation equipment sited at a customer's premises with the utility's distribution system. Trico Electric Cooperative's tariff includes a section that establishes safety considerations for a customer's stand-by generation equipment, but does not specifically address generation equipment installed to operate concurrently with utility-supplied energy. Some utility tariffs require that any customer equipment comply with the National Electric Safety Code. Other utility tariffs simply state that the customers are responsible for all equipment on their side of the point of delivery.

Any photovoltaic system that connects to the grid should undergo a thorough utility inspection before being activated. For example, Arizona Public Service Company's ("APS") current interconnection practices include the following: the customer must enter into an interconnection agreement with APS, submit to APS an interconnection application and sample diagrams, receive preliminary confirmation based on the plans submitted, obtain all required permits, and schedule an interconnection inspection. Only upon final APS approval after inspection will APS activate the interconnection.

In Decision No. 69674, the Commission adopted a standard for interconnection of distributed generation equipment, such as the solar photovoltaic devices that are used in SSAs. The decision refers to the standard as the Interconnection Document. This standard, contained in the Interconnection Document, has not yet been incorporated as a rule in the Arizona Administrative Code. It will provide a detailed and uniform set of guidelines for the interconnection of distributed generation equipment. The guidelines will address safety concerns and other considerations.

As noted by the Solar Alliance in a data response, until the rulemaking process is complete, the Commission has recommended that utilities use the draft rules as a guide for interconnecting such systems. The Solar Alliance believes that application of these rules will allow utilities to safely and efficiently interconnect a customer-sited, solar PV system.

Financial Aspects of SSAs

The Solar Alliance characterizes SSAs as financial instruments that allow customers to obtain solar equipment and lower their dependence on grid-supplied energy and characterizes the energy delivered as incidental to the SSA. The purchase of a solar photovoltaic system is typically costly. While a solar photovoltaic system provides long-term benefits through the reduction of electricity purchased from a utility, achieving the long-term benefits requires a large initial expense. The Solar Alliance describes SSAs as a means to mitigate the cost of acquiring solar photovoltaic equipment. Page two of the Application states, "Customers generally include businesses, state or local governmental entities, schools, congregations and non-profit groups that are interested in supporting renewable energy but lack the necessary capital to invest in such facilities or lack a sufficient taxable income to fully capture federal tax incentives that are available to help finance solar systems." Service to residential customers is not anticipated at this time.

SSAs can allow a reduction in the cost of solar facilities to be realized by taking advantage of federal tax credits. The Emergency Economic Stabilization Act of 2008 continued a 30 percent income tax credit for those who install solar equipment. As many entities might lack sufficient taxable income to take full advantage of the tax credit, SSAs create an arrangement where the SSA provider, as owner of the equipment, can take advantage of the tax credit and thus reduce the total cost of the equipment. Similarly, as mentioned in the Solar Alliance data response, SSAs allow entities such as non-profits and governments who lack income tax liability to benefit from the federal tax incentives.

Under an SSA, someone other than the customer would bear all or most of the cost to acquire the solar equipment. The initial costs to acquire and install such systems are considerable. Those who enter into SSAs enjoy the benefit of reduced electric bills without incurring the large upfront costs of purchasing the systems.

The Solar Alliance describes the SSA model as a financing method in which SSA providers raise capital, usually from third party tax equity investors, and use the money to purchase and install the solar equipment. These third parties, which are often large banks, provide the necessary capital for the SSA provider to purchase what is in many cases millions of dollars worth of solar panels. The third parties also have a second function. Because of their size, they have a large "tax appetite" and can repeatedly absorb or utilize the 30% federal tax credit on a multi-million dollar solar system. The Solar Alliance asserts that this monetizing of the tax credit is crucial for utilizing all available solar incentives. However, very recent changes in the federal stimulus package that allow the solar investment tax credit to be taken as a grant rather than a tax credit may allow some SSA providers to offer financing options directly to the customer in some cases.

SSAs could include options or provisions where customers entering into the SSAs could at some point purchase the equipment. Another possibility is that the customer would lease the equipment. In an example of an SSA contract supplied to Staff by the Solar Alliance, the

agreement includes checkmark boxes where the purchaser (customer) is designated as either owning the facility or alternatively leasing the facility. Staff is not certain whether the Solar Alliance views a leasing arrangement as falling within the twelve characteristics of an SSA. Although the sample SSA referred to in the preceding paragraph refers to a lease, other statements by the Alliance would seem to indicate that a lease is not contemplated by the twelve proposed characteristics.

In a data request, Staff inquired of the Solar Alliance about what sorts of ownership arrangements could be established relative to the provision of solar equipment. Staff asked the Solar Alliance to comment particularly on leasing agreements. The Solar Alliance's response is as follows:

“There are no other mechanisms that will serve the same ends as an SSA. This is particularly true for non-profit and governmental entities. The Federal tax code does not allow the lessor of a solar system sited on property owned by governments or non-profits (schools included) to take the Federal investment tax credit for solar. Given that federal tax credit can account for as much as one-third the cost of a solar PV system, solar leases prevent governmental entities and non-profits from receiving the federal tax benefits that are passed through in SSAs in the form of lower pricing for the same services provided. Therefore, SSAs are the only financially viable vehicle available for school districts and other government entities to obtain third party financing.”

DISCUSSION OF SOLAR ALLIANCE'S TWELVE CHARACTERISTICS

The Solar Alliance has proposed twelve characteristics that it believes distinguish the service of an SSA provider from that of a public service corporation. While these twelve characteristics were helpful to Staff in understanding the rough outlines of an SSA provider, the majority of these characteristics do not necessarily distinguish SSA providers from public service corporations. It would be possible for a public service corporation to have most (if not all) of these twelve characteristics. For example, it is not impossible that an incumbent electric utility could elect to forego the construction of a new central station power plant and instead choose to serve a portion—even a significant portion—of its load with rooftop solar generating facilities located on individual customer premises. It would also be possible for an entity to have these twelve characteristics, but nonetheless not be a public service corporation. In other words, these twelve characteristics are not necessarily a “litmus test” for determining an entity's status, either one way or another.

In its Application, the Solar Alliance states that the provision of electricity is incidental to an SSA Provider's primary purpose, which is to facilitate the financing and acquisition of on-site solar facilities for an individual entity. Staff fully supports efforts to make solar facilities more generally available to the public. None of the twelve characteristics, however, appear to

specifically identify or define the supposed "incidental" nature of the electric service. Characteristic No. 1 provides as follows:

An SSA provider finances, installs, owns, maintains and operates a solar PV facility that is located on a customer's premises and generates electricity using solar power.

Characteristic No. 3 provides as follows:

The SSA provider provides a number of services to the customer as part of the single package, including analysis of the customer's load characteristics, sizing and placement of the solar facility on the customer's premises, financing of costs of acquiring the solar facility, monetizing tax credits related to the solar facility, ongoing maintenance of the solar facility, and electric output of the solar facility.

These are the two characteristics that appear to describe the services that an SSA Provider actually provides; however, both of these proposed characteristics list the services as if each is of equal value. In other words, these characteristics would appear to encompass not only entities that are primarily in the business of providing financing, while providing electricity in an incidental way but also entities that are primarily in the business of owning solar generating plants and selling electricity, while providing some other service in an incidental way. The twelve characteristics do not seem to be helpful in addressing how to determine whether the provision of electricity is incidental to some other primary business function.

Staff does not quibble with the notion that an entity could provide electricity in a way that is incidental to its primary business and not be a public service corporation. However, Staff is not convinced that the Solar Alliance has thus far provided facts that explain why the provision of electricity in the circumstances of an SSA is incidental. Certain marketing materials from Solar Alliance members appear to emphasize the ownership of the generating plant by the SSA provider and the sale of electricity from that plant to the customer. However, it is unclear to Staff at this point to what degree the contemplated financing arrangements, which may potentially involve complex tax credit considerations, are in themselves a specialized and unique service that might dwarf any provision of electricity. Additional information in this regard may be helpful. Because of these issues, a hearing would be helpful.

Finally, Staff notes that, to the extent that an SSA provider is in the business of providing a means for customers to finance the customer's purchase or lease of solar generating equipment, an SSA may potentially be viewed as similar to self-service, as in the example of a backyard well. This factor could be viewed as distinguishing SSAs from other entities that are in the business of owning solar generating facilities indefinitely and selling their energy output. Staff is not certain to what degree this observation addresses the Solar Alliance's concerns.

SSA PROVIDERS AND OTHER REGULATED AND NON-REGULATED ENTITIES

In the previous sections of this report, Staff provided a factual description of a typical SSA provider and discussed the Solar Alliance's proposed twelve characteristics for SSAs. In the following section, Staff will provide an overview and description of various entities, both regulated and unregulated, in an effort to provide an additional factual context for the Commission's consideration of this matter.

The Commission regulates a variety of utility industries. They include electric utilities, gas utilities, water utilities, telephone utilities, and sewer utilities. Within each industry, there are different kinds of providers and different kinds of services that are offered.

In the typical context, a public service corporation is engaged in providing a commodity that is fundamental to the public health and welfare, such as electric, gas, water, sewer, or telecommunications service. The public service corporation invests in the plant and facilities necessary to provide service, and often provides "bundled" services. Typically, a public service corporation operates in a monopoly context. However, not all public service corporations share each of these characteristics. For example, many competitive telecommunications providers such as resellers, competitive local exchange providers, Coin Operated Pay Telephones ("COPTs"), and others are subject to regulation. These various telecommunications entities operate in a competitive context, yet are still subject to some level of Commission regulation.

By contrast, an individual who installs a well on his property for the provision of water only to himself is not regulated as a public service corporation. Similar treatment is accorded to certain water providers that satisfy certain conditions. In Decision No. 55568, the Commission established a set of criteria that could be used as a guideline to determine whether an entity providing water services can be adjudicated as not a public service corporation. The criteria include that the association has a fixed number of members and cannot further subdivide. The criteria set forth in the Decision serve to require that the association not grow in its provision of service and behave like, or compete with, public service corporation water utilities.

COPTs provide an example of stream-lined Commission regulation. Rather than performing a traditional rate case for determining tariff rates for COPT, the Commission applies the Generic Tariff, established in Decision No. 58535, to all COPT applications. While a COPT provider could conceivably make an application seeking some rate other than the Generic Tariff, this generally does not happen. Commission regulation of COPT service is, for the most part, limited to granting the application for a CC&N and assigning the Generic Tariff. Rather than issuing a generic tariff, it is more common for tariff rates specific to an individual utility to be determined through a rate case. Most utilities are subject to this more rigorous review by the Commission, particularly for-profit utilities providing electric, gas, water, and sewer service.

The Solar Alliance states that service under an SSA is different from service by a public service corporation because, in an SSA, generation and delivery of electricity occurs entirely on a customer's private property. Even assuming that this description is accurate, there were

entities that provided service as public service corporations entirely on a customer's private property. For example, competitive meter service providers provided a meter which separated the customer's facilities from the utility's facilities. In such a case, the meter belonged to the meter service provider. It was connected to the utility's distribution lines. Meter service providers were considered to be public service corporations.

Staff would also note that, in an SSA, the generation and delivery of electricity involves more than the customer's private property, because the solar generating unit is owned by the SSA provider. As the solar photovoltaic panels themselves would typically be owned by the SSA provider, the electricity would be generated by SSA property, the solar panel, rather than the customer's property. The fact that the SSA provider owns the solar panel that is located on the customer's building does not change the fact that the panel is owned by the SSA provider. The solar generator may be located on a customer's building, but the energy is generated from equipment that is owned by the SSA provider, not by the customer.

The Solar Alliance also states that service under an SSA is different from service by a public service corporation because, in an SSA, the generation and delivery of electricity occurs without any use of common infrastructure. Even assuming that this description of the SSA is accurate, there are entities that provide service as public service corporations even in the absence of connection to or use of any common infrastructure. For example, during the relatively brief period in which retail electric competition was active, meter reading service could be performed by providers other than traditional incumbent utilities. Meter reading service typically includes all functions related to the collection and storage of consumption data. Providers of meter reading service were considered to be public service corporations, and were granted Certificates of Convenience and Necessity ("CC&Ns"). Meter reading service providers did not supply equipment connected to the grid. In fact, their service did not make use of any connected equipment either on the customer or utility side of the meter.

Private Line Telecommunications Service is another example of an activity considered as provision of a public service even in the absence of connection to or use of any common infrastructure. Providers of Private Line Telecommunications Service make use of a direct circuit or channel specifically dedicated to the use of an end user organization for the purpose of directly connecting two or more sites in a multi-site enterprise, or alternatively connecting multiple enterprises. While these circuits or channels on some occasions have no interconnection with the public network, they have historically been granted CC&Ns by the Commission.

In the application, the Solar Alliance claims that the services provided through an SSA are not indispensable to large segments of the population. At the present time, this claim would appear to be accurate. It does not appear that a substantial number of SSAs are in existence in Arizona at this time. Staff asked the Solar Alliance to provide estimates as to how many customers would be served by SSAs in the future. In response, the Solar Alliance provided the following chart, which is based on the APS and Tucson Electric Power Company ("TEP") 2009

REST Implementation Plans. The information in the 2013 column is not cumulative but, rather, represents additional customers.

| | | Projected #s of SSA Financed Systems | | | | | | | | | | | |
|---|--|--------------------------------------|---------------------|--------------|-----|-----------------|---------------------|--------------|-----|---------------------------|---------------------|--------------|-----|
| This chart conservatively assumes that half of all non-residential systems will be financed through SSAs. | | 2010 | | | | 2013 | | | | 2018 | | | |
| | | Large >200kW | Medium <200, >50 | Small <50 | 60% | Large >200kW | Medium <200, >50 | Small <50 | 50% | Large >200kW | Medium <200, >50 | Small <50 | 40% |
| APS Service Territory | | | | | | | | | | | | | |
| Percentage of Total # of Systems by Size | | | | | | | | | | | | | |
| # of Total Systems by Size | | | | | | | | | | | | | |
| APS Estimate of Total# of Non-residential solar systems to needed to Meet REST Goals * (Including SSA financed and Customer Purchased) | | 111 | | | | 105 | | | | No Utility Data Available | | | |
| Non-Residential Commercial Financed** | | 50% | | | | 30% | | | | 50% | | | |
| Non-Residential Government | | 30% | | | | 20% | | | | 30% | | | |
| Non-Residential Non-Profit | | 20% | | | | 20% | | | | 40% | | | |
| Total SSA Financed Systems | | 11 | | | | 21 | | | | 53 | | | |
| TEP Service Territory | | | | | | | | | | | | | |
| Percentage of Total # of Systems by Size | | | | | | | | | | | | | |
| # of Total Systems by Size | | | | | | | | | | | | | |
| TEP Estimate of Total# of Non-residential solar systems to needed to Meet REST Goals*** (Including SSA financed and Customer Purchased) | | 18 | | | | 44 | | | | No Utility Data Available | | | |
| Non-Residential Commercial | | 50% | | | | 30% | | | | 50% | | | |
| Non-Residential Government | | 30% | | | | 20% | | | | 30% | | | |
| Non-Residential Non-Profit | | 20% | | | | 20% | | | | 40% | | | |
| Total SSA Financed Systems | | 2 | | | | 9 | | | | 22 | | | |

* From APS 2009 REST Implementation Plan
 ** There are no residential SSA agreements
 *** From TEP 2009 REST Implementation Plan. TEP estimates that there will be .919 MW of Non-residential Capacity installed in 2010 and 2.2 MW in 2018. Assumes average system size of 50kW.

The Solar Alliance states that the size of the distributed generation solar market is largely tied to the available utility incentive funding, as well as minimum non-residential distributed generation carve-outs included in the REST Rules. Because of this, the Solar Alliance believes that utility estimates of how many solar systems it will take to meet goals are fairly accurate. It is difficult to draw any definite conclusions as to the total potential load from these predictions, as they do not indicate the load that would be associated with these installations.

Finally, in the current regulatory circumstances, it is possible that the operation of SSAs will not result in duplication of services. This is because of the REST Rules. Absent the REST Rules, the entry of SSAs could lead to the development of a duplication of resources, because incumbent utilities must develop resource plans in order to serve their entire loads, while SSA providers would essentially be developing duplicate resources in the hopes of acquiring a portion of the utilities' load. The REST Rules, however, require traditional utilities to meet certain goals related to distributed renewable energy. It may be helpful for the electric utilities to address in a hearing in this matter whether this application has any implications for their resource planning.

OTHER ISSUES AND CONCERNS

Staff notes that there are certain matters that were largely unaddressed in the Solar Alliance's application. Although Staff has attempted to clarify these matters through discovery, some issues are still not clear. It is possible that the clarification of some of these issues may require input from the electric utilities.

For example, Staff has less than perfect understanding as to why the Solar Alliance is seeking this adjudication. Staff is not certain whether it is as simple as a preference to be unregulated or whether there is some impediment (either perceived or real) that regulation would pose for these entities. Staff would note that it would appear to be undisputed that a lease (and probably even an SSA with a provision for the customer to eventually own the plant) would likely not lead to regulation as a public service corporation. However, the Solar Alliance apparently rejects this as a business model. For example, a sample SSA supplied to Staff specifically provided for either a lease or an option to purchase. In a data response, however, the Solar Alliance specifically stated that, for tax implications, its twelve proposed characteristics do not support a lease or purchase option. The tax implications apparently relate to their provision of service to non-profit and government entities. At this point, the Solar Alliance has not identified how much business it anticipates to receive from such entities, so it is difficult for Staff to judge the scope of this issue. Staff would also note that, even if there were to be no other conclusion than that SSA providers are public service corporations, there are examples of Commission regulation that are different (and more light-handed) than traditional notions of regulation. The Solar Alliance has not discussed why those would not be possible. Staff fully supports the efforts to make distributed solar facilities more generally available to the public, but at the same time, Staff seeks to fully understand the nature of the problems faced by the Solar Alliance and its members that have led to this application.

Staff notes that the application does not address any safety implications that may be raised by a conclusion that SSA providers are not public service corporations. Staff performed its own research on this issue and has not thus far identified any safety concerns. However, Staff believes that it would be helpful for the Solar Alliance and the electric utilities to address this issue.

In addition, the application does not appear to address any potential reliability implications that may be raised by a conclusion that SSA providers are not public service corporations. For example, if SSA providers were to acquire some significant degree of Arizona load, it is unclear what the repercussions may be if SSA facilities were to suffer a sudden, catastrophic failure. At this point, it is unclear to Staff whether such an event would have repercussions for Arizona's electric system as a whole or for non-SSA customers. Again, Staff believes that it would be helpful for the Solar Alliance and the electric utilities to address these issues.

Because of these various issues as well as others noted throughout the body of this report, Staff believes that a hearing would be helpful.

CONCLUSIONS AND RECOMMENDATIONS

Staff fully supports efforts to make the acquisition of solar distributed renewable energy facilities more accessible to the public.

In reviewing the twelve proposed criteria, Staff finds that, while the characteristics are helpful in describing and understanding the physical aspects of the equipment and the operations of the proposed business model, the majority of the characteristics do not necessarily distinguish SSA providers from public service corporations. In Staff's opinion, public service corporations could offer services that share many of the proffered characteristics, rendering the characteristics less meaningful for the purpose of comparisons between SSA providers and public service corporations. Also, there is the potential for SSAs to contain additional terms or characteristics beyond those identified and discussed.

Staff must also be mindful of the potential repercussions of any Commission order in this matter for other circumstances. While some may be inclined to adjudicate SSA providers so that the public may enjoy the benefits contemplated by the REST Rules of increased applications of solar distributed generation facilities, such a potential result may have an undesirable effect in other circumstances in which the Commission would desire an expansive view of its authority. For this reason, any conclusion that SSA providers are not public service corporations should be as narrowly drawn as possible.

While Staff acknowledges that an entity's provision of electric service could be incidental to some other business purpose, thereby not qualifying as a public service corporation, the twelve proposed characteristics do not provide factors for determining when such provision of electricity is incidental to some other business purpose. Further, it might be possible that other criteria may be more appropriate than that proffered than the Applicant.

To the extent that an SSA envisions a customer's lease or eventual ownership of the solar generating equipment, the SSA would seem to be somewhat more akin to an individual digging a well on his own property and providing service only to himself.

However, in circumstances where the SSA provider owns the solar generating facility on an indefinite basis, and sells electricity generated to a customer, we do not at present have facts that would allow us to conclude that such activity is largely incidental to some other business purpose.

Staff believes a hearing in this matter would be helpful. As Staff has noted throughout this report, there may be additional information that the Alliance could provide that may be helpful. In addition, there are thirteen interveners in this matter, and Staff anticipates that they will express opinions, and present testimony in this matter.