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NEW APPLICATION



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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

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2009 JUL 14 P 4: 50
AZ CORP COMMISSION
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Arizona Corporation Commission

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JUL 14 2009

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IN THE MATTER OF ARIZONA
PUBLIC SERVICE COMPANY –
APPLICATION FOR
AUTHORIZATION TO SELL PATENT
RIGHTS AND RELATED
INTELLECTUAL PROPERTY RIGHTS

E-01345A-09-0357

DOCKET NO. E-01345A-09-

Arizona Public Service Company (“APS”) seeks a determination from the Arizona Corporation Commission (“Commission”) that the sale of patent rights and related intellectual property rights (“Patent Rights”) is not subject to A.R.S. § 40-285(A) and, thus, Commission approval is unnecessary. Alternatively, APS requests authorization to sell the Patent Rights applicable to solar tracking technology developed by APS at its Solar Test and Research (“APS STAR”) Center.

BACKGROUND

The APS STAR Center, which began operating in 1985, is an innovation center and solar power plant where APS works with manufacturers, universities, and government laboratories to develop and test emerging technologies that are applicable to APS’s business. The APS STAR Center is world-renowned for creating cutting-edge solar technology and is the only test center of its kind in the United States – testing virtually all types of photovoltaic (“PV”) technology and high concentration tracking systems. The APS STAR Center has also been the site for APS to demonstrate the functionality and reliability of other emerging technologies (e.g., flow-batteries and energy efficient phase-change insulation materials).

1 All APS customers, and many state residents, benefit from the work of the APS
2 STAR Center. For example, technology used in solar power plants in Flagstaff, Gilbert,
3 Glendale, Prescott, and Yuma, as well as in other current and future commercial and
4 industrial projects, was proven at the APS STAR Center.

5 APS STAR Center operations have been funded in part from surcharges approved by
6 the ACC to advance renewable technologies. Prior to the Arizona Environmental Portfolio
7 Standard ("EPS"), the Commission created the Energy Efficiency and Solar Energy
8 ("EESA") Fund to allow APS to develop solar resources. With the advent of the EPS, APS
9 was required to derive a specific percentage of its generation from renewable resources, and
10 at least 60% of the renewable requirement had to be solar.¹ In addition, all renewable
11 resources used to comply with the EPS had to originate in Arizona.² During the EESA Fund
12 and early EPS years, APS could not comply with the EPS by executing purchase power
13 agreements, because of the infancy of the commercial solar generation market, and had to
14 self-build solar power generating facilities. In 1997, when APS deployed Arizona's first
15 commercial/utility scale solar arrays, it identified a need to simplify construction and
16 improve the performance and reliability of such larger scale solar equipment. This led APS
17 to develop structural equipment, controls, and expertise related to solar tracking and
18 *monitoring*.

19 APS's work with solar arrays demonstrated that solar tracking systems could increase
20 solar efficiency and increase electricity generation by mechanically tracking the sun
21 throughout the day. Ultimately, APS developed two types of tracking systems: a single-axis
22 tracker and a dual-axis tracker. As the names suggest, the tracking systems rotate the solar
23 panels to more directly face the sun on either a single axis or a dual axis. The single-axis
24 tracker increases annual electrical output by 20% when compared to a non-tracking solar
25 system, and the dual-axis tracker increases the annual electrical output by an additional 10%
26 over a single-axis tracker. APS also developed a tilted, single-axis tracking system that

27 ¹ See generally A.A.C. R14-2-1618. A surcharge was added to customer's bills to pay for the new renewable
generation.

28 ² See *id.*

1 closely approximates the efficiency of the dual-axis tracking system. APS patented the
2 tracking system technologies.

3 The patents are intangible, something of value that cannot be physically touched, and
4 merely grant APS "the right to exclude others from making, using, offering for sale, or
5 selling the invention throughout the United States or importing the invention into the United
6 States."³ The Patent Rights that are the subject of this Application include those related to
7 the horizontal, single-axis tracking system; the tilted, single-axis tracking system; and the
8 dual-axis tracking system. The sale does not, however, include any of the underlying
9 tangible products or technologies.

10 There currently exists a significant market for products contemplated by the Patent
11 Rights, but APS is neither positioned nor resourced to capitalize on market demands. The
12 potential national and international markets for these products require the ability to
13 aggressively compete for market-share and to protect the technology, but APS – a regulated
14 utility – is not the type of adaptive, competitive business needed to best leverage these
15 markets. Further, the time window for exploiting the technology – before new and better
16 technology replaces it – is a small one, so it is critical that APS capitalize on the technology
17 while it is still state-of-the-art.⁴ Selling the Patent Rights to an unaffiliated third party with
18 significant domestic and international presence, and the resources to aggressively market,
19 will help foster advancement of the technology and keep it competitive in a rapidly evolving
20 marketplace.

21 After negotiating with two interested companies, APS executed a purchase
22 agreement for the Patent Rights with Unirac, Inc. ("Unirac"), a leading American
23
24
25

26 ³ See 35 U.S.C. § 154.

27 ⁴ Although APS originally secured the Patent Rights to protect its use of the technologies for the benefit of its
28 customers, it is clear that APS customers will benefit from the sale since the proceeds will be reinvested to develop
emerging technologies. See discussion, *infra*, p. 7-8. Further, APS customers retain the original intended benefit because
APS retains the ability to continue using the underlying technology. See discussion, *infra*, p. 4.

1 manufacturer of solar PV mounting solutions.⁵ Unirac collaborates with installers and
2 system integrators to deliver mounting solutions that offer energy efficient and low cost
3 installation. It has an extensive list of prominent commercial and industrial installation
4 projects.

5 Importantly, and pursuant to the purchase agreement, APS retains a broad license to
6 use the Patent Rights. Specifically, APS retains for itself, third parties with whom APS may
7 co-own a solar plant, contractors who may build a plant on APS's behalf, and energy
8 suppliers with whom APS executes power purchase agreements, the irrevocable and royalty-
9 free right to use the technology underlying the Patent Rights and to have products that
10 embody the technology manufactured for APS. Consequently, APS maintains the right to
11 use the solar tracking technology in any manner it chooses, for the benefit of all its
12 customers, except that it may not sell or market any products that are related to the solar
13 tracking technology for a period of three years.

14 **REQUEST FOR DECLARATION THAT A.R.S. § 40-285(A) IS INAPPLICABLE**
15 **OR, IN THE ALTERNATIVE, APPROVAL OF SALE OF THE PATENT RIGHTS**

16 The Patent Rights do not fit within the category of APS's "plant or system" that
17 historically has required Commission approval to sell, pursuant to A.R.S. § 40-285(A).
18 There is no Arizona precedent about the application of this statute to intangible property
19 rights. APS makes this application to either establish to the satisfaction of Unirac that
20 Commission approval is unnecessary or, in the alternative, to seek approval for the
21 proposed sale.

22 **A. A.R.S. § 40-285(A) is not Applicable to the Proposed Sale.**

23 A.R.S. § 40-285(A) states:

24 A public service corporation shall not sell, lease . . . or otherwise dispose of or
25 encumber the whole or any part of its . . . plant, or system necessary or useful
26 in the performance of its duties to the public . . . without first having secured
from the commission an order authorizing it so to do.

27 ⁵ The purchase agreement includes a provision that requires APS, among other things, to keep confidential certain
28 details of the purchase. To facilitate the processing of this Application, APS will disclose the specifics of that
agreement to Commission Staff upon the execution of a Protective Agreement for this matter.

1 Commission approval is thus required to validate the sale when *and only when* the “plant or
2 system” is necessary or useful in the performance of a public service corporation’s duties to
3 the public. A public service corporation is not required to obtain Commission approval
4 every time it seeks to dispose of “plant or system.” See Babe Investments v. Arizona
5 Corporation Commission, 189 Ariz. 147, 151-52, 939 P.2d 425, 429-30 (Ariz.App. Div.1
6 1997); see also A.R.S. § 40-285(C) (authorizing disposition if the property is “not
7 necessary or useful in the [corporation's] performance of its duties to the public”).
8

9 APS does not believe that the sale of Patent Rights falls within the ambit of A.R.S. §
10 40-285(A). APS is not selling tangible property (e.g., part of a physical plant or system); it
11 is only selling the intangible right to exclude others from using the technology. See 35 U.S.C.
12 § 154. The Patent Rights being sold were never “part” of an APS plant or system in any
13 traditional sense that might have been contemplated at the time A.R.S. § 40-285 was first
14 enacted. No physical property or use rights are being disposed of or encumbered because
15 APS retains all the rights necessary to continue its use of the solar tracking technology.
16 Moreover, APS never included or attempted to include this intangible property in its rate
17 base, further evidencing APS’s belief that the property is not “used and useful.”⁶

18 In addition, the Patent Rights themselves are not currently “necessary or useful” to
19 APS in the performance of its duties. See generally American Cable Television, Inc. v.
20 Arizona Corporation Commission, 143 Ariz. 273, 277, 693 P.2d 928, 932 (Ariz.App. Div.1
21 1983); Arizona Public Service Company v. Mountain States Telephone and Telegraph
22 Company, 149 Ariz. 239, 717 P.2d 918 (Ariz.App. Div.1 1985). Rather, as the federal
23 patent statute states, patent rights merely grant the *right to exclude*, which is not the same as
24 the right to create or the right to use for one’s own purposes. See generally 35 U.S.C. § 154.
25 Thus, APS does not *need* the Patent Rights; that is, APS does not need the right to exclude
26 others to perform its duties to the public, which is the provision of reliable electricity. APS
27 can continue to operate the same after the transaction as it did before the transaction with

28 ⁶ See A.C.C. R-14-2-201(h) (requiring, among other things, that property included in original cost rate base to include only that which is “used and useful”).

1 respect to the technology underlying the Patent Rights, so the Patent Rights are not
2 themselves *useful* in that regard.

3 Finally, as noted above, the Patent Rights were never included in APS's rate base;
4 thus, they have not been claimed by APS or found by the Commission to be "used and
5 useful." The potentially necessary or useful part of this technology, the property underlying
6 the Patent Rights, is not involved in the transaction. Therefore, the Patent Rights are not
7 subject to A.R.S. § 40-285(A) and Commission approval for their sale or other disposition is
8 unnecessary.

9 **B. If A.R.S. § 40-285(A) is Applicable to the Proposed Sale, then APS Seeks**
10 **Approval of the Sale and its Proposed Use of the Net Proceeds.**

11 If the Commission determines that approval is required, then APS requests
12 authorization to sell the Patent Rights to Unirac.⁷ A proposed asset transfer should be
13 approved if it is compatible with the public interest and will not impair the public service
14 corporation's ability to perform its services. See ACC Decision No. 71167 (*Pineview Water*
15 *Co.*, June 16, 2009); ACC Decision No. 69948 (*UNS Electric, Inc.*, October 30, 2007); ACC
16 Decision No. 58743 (*Pima Utility Co.*, August 11, 1994); see also American Cable
17 Television, 143 Ariz. at 277, 693 P.2d at 932 (noting the legislature intended A.R.S. § 40-
18 285 to prevent a utility from disposing of resources devoted to providing its utility service,
19 thereby "looting" its facilities and impairing its service to the public).

20 Vitally, approval of the Patent Rights sale will not impair APS's ability to perform
21 its services to the public or result in "looting" of assets. See supra at 4-6. Further, the sale
22 is in the public's interest for two reasons: (1) APS will effectuate efficient and economical
23 disposition of its intellectual property rights, while at the same time retaining full rights to
24 use this technology for the benefit of its customers, precisely as if the sale had not occurred,
25 *see infra* at 4-5; and (2) the proceeds from the sale, if this Commission so authorizes, will

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27 ⁷ This transaction does not fall within ACC Decision No. 69670 (June 28, 2007), which granted APS pre-approval to
28 transfer, sell, mortgage, lease, assign, or otherwise dispose of or encumber, in whole or in part, tangible or intangible
property otherwise subject to A.R.S. § 40-285(A) (used and useful property) as it exceeds the individual transaction cap
of \$750,000.

1 be used to help APS develop new innovative technologies that foster energy independence
2 and the reduction of greenhouse gases, further benefiting its customers.

3 With respect to this latter point, APS proposes to reinvest the sale's proceeds to
4 advance new technologies that will help reduce its carbon footprint and address climate
5 change.⁸ There is a need for funds to develop technology that can address the CO2
6 emissions from our existing fossil plants because the energy from those units will be needed
7 for many years, even in the face of developing global warming policy. Indeed, the Patent
8 Rights' sale provides the funds necessary to leverage currently available federal government
9 dollars set aside to address CO2 emissions and climate change.

10 For several years, APS has led an effort to develop technology that can use
11 America's abundant coal supply to make commercial pipeline-quality methane, via
12 gasification, capable of addressing concerns of diminishing domestic natural gas resources.
13 Additionally, APS worked with GreenFuel from 2005 to 2007 to advance clean technologies
14 and capture CO2 emissions from fossil generation. At APS's Redhawk power plant,
15 GreenFuel's Emissions-to-Biofuels™ technology used an algae bioreactor system connected
16 to the stack of the power plant to recycle CO2 emissions, thereby reducing the amount of
17 CO2 dispersed into the air, and then converted the algae into renewable biofuels.

18 On May 15, 2009, the U.S. Secretary of Energy announced that \$2.4 billion from the
19 American Recovery and Reinvestment Act will be used to expand and accelerate the
20 commercial deployment of carbon capture and storage technology. As part of this program,
21 APS is poised to receive a \$70.6 million grant to expand testing of its existing algae-based
22 carbon mitigation project with the coal-based gasification system – Coal Hydrogasification
23 with Algae Farming project. The host facility for this project is the Cholla Power Plant
24 located in Holbrook, Arizona. The major goal of the project is to demonstrate a process that

25 ⁸ ACC Decision No. 69670 (June 28, 2007), requires fifty-percent of the net gain on pre-approved transfers or sales to
26 be credited to APS ratepayers by placing the money in the account utilized for compliance with Decision No. 60481, as
27 amended by Decision No. 61708. The money in that account is either refunded to customers or used to fund programs
28 that will directly benefit customers, as directed and approved by the Commission. However, the net gain of this
transaction is difficult to assess. Intellectual property rarely has a definitive net book value and the costs to develop the
technology are unknowable. Regardless, fifty-percent of the sales price results in a *de minimis* refund to APS's
approximately 1.1 million customers, and would be impractical and uneconomical to refund.

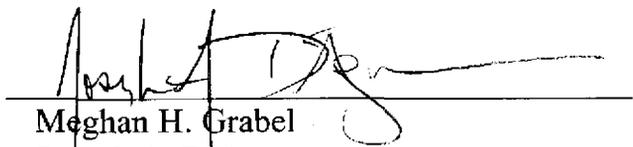
1 utilizes coal to produce energy without greenhouse gas emissions.⁹ The algae can be used to
2 advance the United States' energy independence through the production of biofuel and
3 ethanol. To receive the grant and participate in the Department of Energy's program, APS
4 needs matching funds of approximately \$18 million. APS proposes to use the proceeds
5 from the Patent Rights sale for a portion of such matching funds. The balance of the
6 matching funds will come from investments by APS and other partners.

7 **CONCLUSION**

8 For the reasons stated above, APS believes the sale of its Patent Rights is not subject
9 to the provisions of A.R.S. §40-285(A) because such intangible property rights are not a
10 part of APS's "system" within the meaning of that statute and the Patent Rights themselves
11 are not "necessary or useful." To the extent the Commission disagrees with APS's legal
12 analysis, APS believes approval of the sale of the Patent Rights is both appropriate and in
13 the public interest. Therefore, APS asks the Commission to either make a determination
14 that Commission approval is not necessary or, alternatively, to approve this application and
15 approve the reinvestment of the sale's entire proceeds as part of the required matching
16 funds for the DOE Stimulus project noted above.

17
18 RESPECTFULLY SUBMITTED this 14th day of July, 2009.

19
20 PINNACLE WEST CAPITAL CORPORATION
21 LAW DEPARTMENT

22 By: 

23 Meghan H. Grabel
24 Joseph A. D'Aguzzo

25 Attorneys for Arizona Public Service Company
26
27

28 ⁹ The strategy uses methane for power generation and captures the greenhouse gas emissions using algae farming.

1 ORIGINAL and thirteen (13) copies
2 of the foregoing filed this 14th day of
3 July, 2009, with:

4 Docket Control
5 ARIZONA CORPORATION COMMISSION
6 1200 West Washington Street
7 Phoenix, Arizona 85007

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