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ILLINOIS POWER AGENCY	)	
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Petition for approval of the 2015 IPA Procurement Plan Pursuant to Section 16-111.5(d)(4) of the Public Utilities Act	)))	ICC Docket No. 14-0588

OBJECTIONS AND RESPONSE OF SARGAS, INC. TO THE ILLINOIS POWER AGENCY'S PROCUREMENT PLAN

Sargas, Inc. ("Sargas"), submits its Objections and Response, pursuant to Section 16-111.5(d)(3) of the Illinois Public Utilities Act ("PUA") (20 ILCS 5/16-115(d)(3)), to the Procurement Plan ("Plan") filed with the Illinois Commerce Commission ("Commission") by the Illinois Power Agency ("IPA").

I. Summary

Sargas, a US subsidiary of Sargas AS, a Norwegian technology company, is developing, with the support of Coles Together, Illinois' Department of Commerce and Economic Opportunity (DCEO) and Illinois Clean Coal Review Board (CCRB), a coal-fired power plant at Mattoon with post-combustion carbon capture for additional economic and environmental benefit.

The plant has been designed to burn Illinois coal using Sargas' proprietary fluidized bed and CO_2 capture technology to generate electricity with 99% SO_2 capture, low NOx emissions, and 90%-plus carbon capture. Captured CO_2 will be used beneficially for enhanced oil recovery ("EOR"). Combustion and emissions reduction are achieved at a high pressure, in the Sargas process, resulting in better efficiency and reduced component size compared to unpressurized systems. The technology and design implementations result in a modular design approach of

increments of approximately 80 megawatts (MW). The initial design of the proposed plant at Mattoon is a single module of ~80 (MW).

The technology proposed for the Sargas project, and for which project feasibility engineering at Mattoon has been done, involves the innovative Sargas ultra clean coal solution technology (hereafter referred to as "Sargas technology"). Sargas technology achieves its remarkable generating and capture efficiencies (greater the 90% of CO_2) by combining proven industrial processes into an integrated, pressurized system unique to Sargas.

The Sargas technology power plant design uses direct firing of coal into a pressurized fluidized bed. The coal is mixed with limestone or dolomite for high sulfur capture (well-suited to the composition of Illinois coal supplies), with water added to facilitate pumping into the pressurized combustor. Low and uniform combustion temperature results in the formation of very low levels of thermal nitrous oxides (NOx), long residence time results in very low carbon monoxide (CO), and almost full utilization of the available atmospheric oxygen, which in turn avoids the need for constructing a separate oxygen plant.

The process includes a CO_2 capture system utilizing an inorganic mineral-based CO_2 adsorbent. Once captured, the sequestration of CO_2 can be accomplished through either geological storage (as is the case for FutureGen 2.0 and ADM), or through the injection into suitable oilfields (for EOR), or other alternatives that confer the advantage of the economically beneficial use of CO_2. Sargas, in consultation with the Illinois Geological Survey (IGS), has determined that it is feasible to use CO_2 effectively for EOR in Illinois oilfields near Salem, Clay City and Sailor Springs, as well as at those in and around Coles County.

CO_2 has been used for EOR in the Permian Basin (located primarily in Texas and portions of Southeastern New Mexico) for several decades. The current high prices for crude oil

have led to an increasing use of CO_2 for EOR as well as increasing prices that the oil operators are willing to pay for the CO_2. Since EOR has not been used in Illinois to date, the development of an infrastructure for the transport and use of CO_2 for EOR has the potential to provide significant economic benefits to regions of Illinois that enjoy commercial scale oil deposits. Sargas has entered into negotiations with the majority of owners and operators of oil fields in Coles County to secure and develop offtake agreements to use the CO_2 from the Mattoon Sargas plant for EOR at their oil wells. Revenues obtained from CO_2 sales for this purpose will substantially subsidize the price at which generated electricity can be sold.

Prior to the release of the Draft 2015 Procurement Plan, Sargas representatives met with the IPA and had discussions concerning the Sargas proposal and the 2015 procurement plan. The outcome of these discussions was a proposal by Sargas to include a competitive clean coal procurement in the 2015 Procurement Plan. For the reasons stated in the proposed plan, the IPA has rejected the inclusion of a competitive clean coal procurement in the 2015 Procurement Plan.

Sargas believes that it is crucial to the continued development of clean coal technologies and the coal industry in Illinois for the ICC to follow the clear legislative intent in the enactment of the CCPS statute and use its discretionary authority in regulating Illinois' utilities and ARES to require both to purchase power produced by clean coal facilities and procured under a competitive process mandated by the ICC and managed by the IPA as part of the 2015 Procurement Plan.

The extensive work done by Sargas on the Mattoon project over the past several years has been undertaken in reliance on the statutory mandates concerning the IPA's statutory obligation to include a clean coal provision in each Procurement Plan. Considerable State

resources (from the Department of Commerce and Economic Opportunity and Illinois Clean Coal Review Board) have also been expended in this regard. Sargas does not seek special treatment – merely the opportunity to bid competitively in the process(es) required by the clear objectives of the legislative plan. The IPA analysis and 2015 Procurement Plan usurps legislative authority by its circumvention of these objectives.

II. Sargas Objects to the Procurement Plan Because It Fails to Comply with the IPA Act's Directive to Include Electricity Generated Using Clean Coal and Fails to Meet the IPA Act's Requirement to Source 25% of the Electricity Used in Illinois from Cost-Effective Clean Coal Facilities.

The IPA "clean coal" statutory analysis underlying its refusal to include a clean coal competitive bidding requirement in the Procurement Plan makes clear that the statutory requirement of 25% of Illinois electricity by 2025 to be clean-coal-produced can never be met. This analysis, then, entails an inadvertent, but significant, contravention of legislative intent – the 25% can *never* be met under the rationale for procedures promulgated by IPA in its Procurement Plan.

IPA Act Section 1-75(d) includes a Clean Coal Portfolio Standard ("CCPS") for Illinois. *See* 20 ILCS 3855/1-75(d). Section 1-75(d) of the IPA Act also directs that each annual "procurement plan ***shall*** include electricity generated using clean coal." 20 ILCS 3855/1-75(d) (1) (emphasis added).

In December 2012, the Commission approved the annual electricity procurement plan (the "2013 Plan") submitted by the IPA. The 2013 Plan is the first procurement plan to include clean coal. The 2013 Plan indicates that the FutureGen Project, for which the Commission approved a 20-year power purchase agreement, is scheduled to go on line in 2017, which is the fifth and final year of the planning horizon considered in the 2013 Plan. *See* 2013 Plan at 79.

The IPA's 2014 annual procurement plan did not include any clean coal in addition to the FutureGen Project's power purchase agreement. The current five-year planning horizon, therefore, includes no new clean coal.

The CCPS also includes a stated legislative objective "that by January 1, 2025, 25% of the electricity used in the State shall be generated by cost-effective clean coal facilities." 20 ILCS 3855/1-75(a). The decision by the Illinois First District Court of Appeals ("First District") affirming the Commission's Final Order that approved the FutureGen Project's power purchase agreement acknowledged the CCPS' 25% clean coal requirement: "The legislature ***established*** that by January 1, 2025, '25% of the electricity used in the State shall be generated by cost-effective clean coal facilities.'" *Commonwealth Edison Co. v. Illinois Commerce Commission*, 2014 Ill App (1st) 130544 (July 22, 2014) ("*ComEd*"), at 4, quoting 20 ILCS 3855/1-75(d)(1). (Emphasis added.)

The IPA's decision not to include a clean coal project or a clean coal mechanism, such as a competitive clean coal procurement, in the Plan renders it deficient for at least three reasons: (1) the Plan fails to satisfy IPA Act Section 1-75(a)'s requirement to include clean coal in each procurement plan; (2) the IPA has not properly prepared to "ramp up" toward a 25% clean coal requirement that is to be met in just over 10 years; and (3) by not including clean coal in this procurement plan the IPA, by its unelected staff's action, will effectively prevent any additional clean coal projects from being available to satisfy the 25% legislative directive.

The Plan is silent about how the IPA intends to account for the 25% by 2025 requirement. In fact, the Plan incorrectly refers to the 25% requirement as an "aspirational goal," which is contradicted by both the language in the IPA Act as well as the First District's opinion,

which states that the General Assembly "established" the 25% requirement by 2025. *See ComEd*, 2014 Ill App (1st) 130544 (July 22, 2014), at 4.

Under the IPA Act and the PUA, the IPA has both the authority and discretion to adopt its own interim deadlines and percentages as a means to clear up the confusion associated with complying with the CCPS. Just over 10 years away from the January 1, 2025 deadline, the IPA and the Commission have only approved approximately 168 MW of nameplate capacity for clean coal in Illinois (from the FutureGen Project). This is less than 1% of Illinois' annual consumption -- far short of the 25% requirement, and given a realistic seven year plant development time, renders the State at risk of violating the 25% requirement, given the effective three year "cushion" remaining.

The First District Court lent a great deal of deference to the authority of the Commission to interpret, manage and implement statutory provisions pertaining to the CCPS. The First District first noted that "[c]ourts give substantial deference to the Commission's decisions for it is an administrative body with expertise in the area of public utilities, and thus is qualified to interpret highly technical evidence," *ComEd*, 2014 Ill App (1st) 130544 (July 22, 2014), at 7, citing *United Cities Gas Co. v. Illinois Commerce Comm'n*, 163 Ill. 2d 1, 12 (1994). The court also emphasized that "courts appreciate an agency's experience and expertise in a given area and therefore will give substantial deference to its interpretation of an ambiguous statute it administers and enforces," *Id.*, citing *Illinois Consolidated Telephone Co. v. Illinois Commerce Comm'n*, 95 Ill. 2d 142, 152-53 (1983), and that although they are "not binding on the courts, an agency's interpretations are an informed source for ascertaining the legislature's intent in enacting the statute" *Id.* (citation omitted).

With reference to these standards, the First District found that the Illinois General Assembly granted the IPA and the Commission more authority than usual when it comes to procuring electricity from clean coal facilities: "This legislative intent is reflected in the clean coal portfolio standard which, by its terms, grants the Illinois Power Agency and the Commission more authority in the procurement of electricity from such sources." *Id.* at 12, citing (*Knolls Condominium Ass'n v. Harms*, 202 Ill. 2d 450, 459 (2002). The First District also "acknowledge[d] the Commission's experience and expertise in this area" and gave "substantial deference to its interpretation of an ambiguous statute it administers and enforces." *Id.* at 13.

Based on the First District's ruling, then, the IPA or the Commission could exercise its broad discretion under the CCPS provisions to begin enforcing the ARES' obligation to source electricity from clean coal facilities in preparation for compliance with the 25% requirement by 2025. Section 16-115(d)(5) of the PUA clearly requires each ARES to purchase electricity from clean coal facilities according to the percentage outlined in Section 1-75(d) (or 25% by 2025). The IPA could choose to exercise its discretion under the PUA and IPA Act to establish deadlines in advance of January 1, 2025 for meeting that requirement, just as the IPA has already exercised its discretion by "laddering" purchases as a price hedge. Read together with Section 1-75(a) of the IPA Act – each procurement plan shall include clean coal – both the PUA and IPA Act provisions relating to clean coal provide the IPA with a mechanism to include clean coal in the current five-year planning window. Hosting a competitive procurement would be the most cost-effective mechanism for getting that done. Without a competitive clean coal procurement, or an alternative means for promoting the development of clean coal projects to supply Illinois' electric markets, the Plan is deficient because it includes no mechanism for achieving the statutory directive of 25% clean coal by January 1, 2025.

III. The IPA Act and Public Utilities Act Confer Upon the IPA the Authority to Bind Both Utilities and ARES to a Power Purchase Agreement Resulting from a Competitive Clean Coal Procurement.

In the Plan, the IPA expresses "concerns" over Sargas' proposal to include a competitive clean coal procurement in the 2015 Plan on the grounds that the IPA may not have the authority to bind both Illinois utilities and ARES to the results of such a procurement. Plan at 111. These concerns are not well-founded – the IPA Act and PUA do confer upon the IPA and the Commission the power to conduct a competitive procurement and bind both electric utilities and ARES.

Generally speaking, the IPA Act's procurement provisions apply to the "eligible retail customers" of Ameren and ComEd: Section 1-75(a) of the IPA Act directs the IPA to "develop procurement plans and conduct competitive procurement processes in accordance with the requirements of Section 16-111.5 of the Public Utilities Act for the eligible retail customers of electric utilities that on December 31, 2005 provided electric service to at least 100,000 customers in Illinois." 20 ILCS 3855/1-75(a). In other words, the IPA was designed primarily to procure power on an annual basis for the customers of Ameren and ComEd, not for the customers of the ARES, who compete in a largely unregulated environment.

Unlike the FutureGen Project, which was able to proceed under the special Retrofit Provision of the CCPS, since it involves a retrofit and repower of a coal-fired facility previously owned by an Illinois utility, a greenfield project like Sargas' proposed clean coal project has no express statutory language to point to as a basis for compelling the ARES to purchase its electricity. Both the Commission and the First District Court of Appeals found that the Retrofit Provision, because it expressly references ARES, provides a basis for support for requiring both the utilities and ARES to purchase power from a retrofitted clean coal facility.

While it is clear through the various CCPS statutory provisions that the General Assembly intended to grow the use of clean coal by imposing the 25% requirement by 2025, the mechanisms for growing the industry, with the exception of the initial clean coal facility and repowered and retrofitted facilities, are not clearly articulated. The statutory scheme as a whole, however, confers discretion upon the IPA and the Commission to work toward and achieve the statutory requirement of 25% by 2025.

Section 16-115 of the PUA governs certification of ARES. Section 16-115(d)(5) states in part:

> That the [ARES] applicant will procure renewable energy resources in accordance with Section 16-115D of this Act, and ***will source electricity from clean coal facilities***, as defined in Section 1-10 of the Illinois Power Agency Act, ***in amounts at least equal to the percentages set forth in subsections (c) and (d) of Section 1-75 of the Illinois Power Agency Act.***

220 ILCS 5/16-115(d)(5) (emphasis added). Section 16-115(d)(5) goes on to state that "[f]or purposes of this Section:"

> (iii) the required source of electricity generated by clean coal facilities, ***other than the initial clean coal facility***, shall be limited to the amount of electricity that can be procured or sourced at a price at or below the benchmarks approved by the Commission each year in accordance with item (1) of subsection (c) and items (1) and (5) of subsection (d) of Section 1-75 of the Illinois Power Agency Act[.]

220 ILCS 5/16-115(d)(5)(iii) (emphasis added). (Note that subsections (d)(5)(i) and (ii) were purposefully left blank.) Moreover, the IPA Act, cross referencing the ARES' certification provisions of the PUA, specifically directs the IPA to consider electricity generated from clean coal facilities during the procurement planning process:

> ***Pursuant to such procurement planning process***, the owners of such [clean coal] facilities may propose to the Agency sourcing agreements with utilities and ***alternative retail electric suppliers*** required to comply with subsection (d) of this Section and item (5) of subsection (d) of Section 16-115 of the Public Utilities Act, covering electricity generated by such facilities.

20 ILCS 3855/1-75(d)(5) (emphasis added).

Indeed, the First District found that the IPA and the Commission have the authority to require both Illinois' regulated utilities and ARES to purchase from clean coal facilities, and the IPA reads that decision too narrowly. The First District specifically rejected the ARES' argument that the IPA Act and the PUA only apply to the customers of Illinois' electric utilities. *ComEd*, 2014 Ill App (1st) 130544 (July 22, 2014) at 11. To the contrary, the First District found that the IPA Act gives the IPA and the Commission broad authority over the ARES:

> The legislature clearly found the use of electricity generated by clean coal facilities important for both utilities and ARES. Both parties must utilize such electricity in their supply to customers, and when the electricity comes from retrofitted clean coal facilities, procurement by utilities and ARES must meet the same benchmarks set forth in section 1-75(d) (5). This legislative intent is reflected in the clean coal portfolio standard which, by its terms, grants the Illinois Power Agency and the Commission more authority in the procurement of electricity from such sources. *See Knolls*, 202 Ill. 2d at 459 (where both a general statutory provision and a specific statutory provision address the same subject, "the specific provision controls and should be applied").

Id. at 12. By contrast to the IPA's conservative approach to its authority in the Plan, then, the First District Court of Appeals found that the IPA and the Commission have "***more*** authority in the procurement of electricity from" clean coal sources. *Id.* (emphasis added.)

Section 16-115(d)(5) of the PUA leaves little doubt that ARES must purchase electricity from clean coal facilities. In fact, in the Final Order in Docket 12-0544, the Commission expressed incredulity that the ARES would complain about this requirement:

> In Illinois, ARES are subject to an application process and review before certification, as well as ongoing annual reporting requirements. In granting such certification, the Commission must find that the applicant for ARES certification will source electricity from clean coal facilities. All Illinois ARES have been on notice prior to their certification regarding the clean coal sourcing requirement, and it is at least disingenuous for them to suggest now that a condition of certification (to which they all seem to have willingly acceded to gain access to the Illinois market) is now somehow unfair and unexpected. The General Assembly can impose requirements on ARES, and did so once it opened the market to electric competition.

Final Order, Docket 12-0544, at 232.

Section 16-115(d)(5)(iii) of the PUA limits the amount of electricity generated by clean coal facilities that the ARES are required to purchase to the percentages in section 1-75(d). The only percentage set forth in Section 1-75(d), apart from the initial clean coal facility, is 25% by 2025. By the time the Plan goes into effect in 2015, the IPA will have less than 10 years to meet the 25% clean coal requirement. The IPA Act and PUA, as interpreted by the First District Court of Appeals, afford the IPA the clear mandate to begin ramping up for the January 1, 2025 deadline. Since nothing in the CCPS or PUA limits the IPA from doing so, the IPA's failure to plan for the January 1, 2025 deadline, given the realistic plant development times mentioned above, makes it likely the 2015 Plan as written will render its efforts to be out of compliance with the IPA Act and the PUA.

To meet its various obligations concerning clean coal power procurement, the IPA not only has the authority to conduct a competitive clean coal procurement, it has an obligation to do so, and thereby comply with the IPA Act's and PUA's CCPS mandated provisions. Including a competitive clean coal procurement in the 2015 procurement plan will ensure compliance with those CCPS provisions and is necessary to a realistic possibility of meeting the January 1, 2025 clean coal deadline.

IV. Clean Coal Can Serve as a Hedge against Regulatory Carbon Constraints and Will Promote a Diverse Portfolio of Energy Supply

In approving the IPA's recommendation to include a clean coal component in the 2013 procurement plan, the Commission found that the clean coal electricity in that plan helped satisfy its statutory obligations to promote a "'diverse'" "'portfolio' of energy supply." Final Order, Docket No. 12-0544 at 225.

The Commission also found that including clean coal in the 2013 plan would "serve as a reasonable hedge against "future carbon risk, particularly as it relates to providing a continued market for the use of Illinois coal, an abundant State resource." *Id.* Conducting a competitive clean coal procurement will further contribute to the State's diverse energy portfolio and will provide an additional hedge against future carbon use restrictions at the federal level. In addition, this would seem to be a particularly prudent approach, given various impending regulatory schemes that will impose clean-coal-like restrictions on all coal-fired electric generation.

V. Sargas' Proposed Competitive Clean Coal Procurement

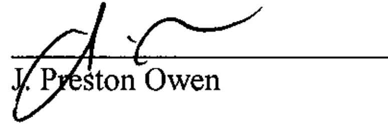
Consistent with the CCPS provisions of the IPA Act, and the clean coal provisions of the PUA, and with the enumerated objective of those provisions for the State of Illinois to source 25% of its electricity from clean coal facilities by 2025, Sargas proposes that the IPA include a competitive procurement of up to 100 MW of electricity generated by clean coal facilities that capture and sequester CO_2 emissions. Sargas proposes that the IPA award a 20-year power purchase agreement for the successful participant(s) in the procurement process. Those successful bidders (or bidders) would enter into a power purchase agreement(s) with both of Illinois' electric utilities and ARES certified to sell electricity in Illinois under terms developed by the Commission.

VI. Conclusion

For the foregoing reasons, Sargas, Inc. respectfully requests that the Commission modify the Plan in response to the comments contained herein.

Dated this the 6th day of October, 2014.

Respectfully Submitted.
Sargas, Inc.


J. Preston Owen

/s/ Paul D. Gandola
Paul D. Gandola

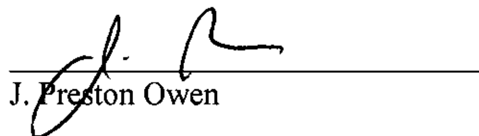
J. Preston Owen
Certified Public Accountant
Attorney-at-Law
1 Lafayette Avenue
P.O. Box 404
Mattoon, IL 61938
(217) 962-0123
prestonowen@consolidated.net

Paul D. Gandola, President
Sargas, Inc.
19443 Lorain Road
Fairview Park, OH 44126
(440) 725-0599
pgandola@ix.netcom.com

STATE OF ILLINOIS)
) SS
COUNTY OF COLES)

VERIFICATION

J. Preston Owen, being first duly sworn, on oath deposes and states that he is an attorney for Sargas, Inc., that he has read the foregoing Objections and Response of Sargas, Inc. to the Illinois Power Agency's Procurement Plan, that he knows of the contents thereof, and that the same is true to the best of his knowledge, information and belief.



J. Preston Owen

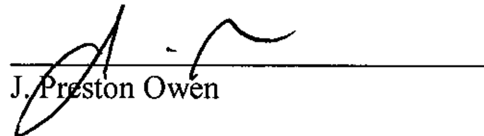
Subscribed and sworn to me
this the 6th day of October, 2014.

Notary Public

My Commission Expires: 3-22-15

NOTICE OF FILING

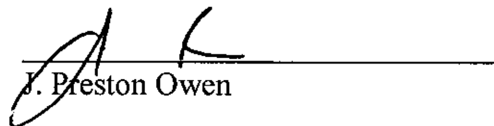
On October 6th, 2014, I caused to be filed with the Chief Clerk of the Illinois Commerce Commission, the attached Objections and Response of Sargas, Inc. to the Illinois Power Agency's Procurement Plan in this proceeding.



J. Preston Owen

CERTIFICATE OF SERVICE

I, J. Preston Owen, certify that I caused to be served copies of the foregoing Objections and Response of Sargas, Inc. to the Illinois Power Agency's Procurement Plan upon the parties on the service list maintained on the Illinois Commerce Commission's e-docket system for the instant docket via electronic delivery on October 6, 2014.



J. Preston Owen