

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**



***REPORT TO THE ILLINOIS GENERAL ASSEMBLY***  
***CONCERNING SPENDING LIMITS ON***  
***ELECTRICITY GENERATED BY***  
***CLEAN COAL FACILITIES***

**Pursuant to subsection (d) of Section 1-75**  
**of the Illinois Power Agency Act**

**June 2015**

STATE OF ILLINOIS



## ILLINOIS COMMERCE COMMISSION

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June 10, 2015

The Honorable Members of the Illinois General Assembly  
State House  
Springfield, Illinois

Dear Honorable Members of the Illinois General Assembly:

Pursuant to Section 1-75(d)(2) of the Illinois Power Agency Act ("Act"), the Illinois Commerce Commission submits the attached Report to the Illinois General Assembly Concerning Spending Limits on Electricity Generated by Clean Coal Facilities.

This section of the Act directs the Commission to review the limitation on the total amount paid under sourcing agreements, if any, with clean coal facilities pursuant to this subsection (d) and report to the General Assembly no later than June 30, 2015, its findings as to whether that limitation unduly constrains the amount of electricity generated by cost-effective clean coal facilities that is covered by sourcing agreements. (20 ILCS 3855/1-75(d)(2)).

Sincerely,

A handwritten signature in black ink, appearing to read "Brien J. Sheahan".

Brien J. Sheahan  
Chairman

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## Executive Summary

The Illinois Commerce Commission (“Commission”) submits this report to the Illinois General Assembly pursuant to Section 1-75(d)(2) of the Illinois Power Agency Act (“IPA Act”)<sup>1</sup>.

The IPA Act created the Illinois Power Agency (“IPA”) with authority to create and implement electric procurement plans on behalf of electric utilities that provided electric service to at least 100,000 customers in Illinois on December 31, 2005.<sup>2</sup> Among Illinois electric utilities, only Commonwealth Edison Company (“ComEd”) and Ameren Illinois Company (“Ameren”) provided electric service to at least 100,000 customers in Illinois on that date. Section 1-75(d) of the IPA Act<sup>3</sup> establishes a clean coal portfolio standard (“CCPS”) governing the purchase of electricity from “clean coal facilities.”<sup>4</sup>

Section 1-75(d)(1) refers to an “initial clean coal facility” capable of generating at least 5% of the electricity demand of ComEd and Ameren customers.<sup>5</sup> It also states that it is the goal of the State that by January 1, 2025, 25% of the electricity used in the State shall be generated by cost-effective clean coal facilities.<sup>6</sup> Paragraph (2) of that subsection includes *limitations* on the total amount paid per year under contracts (called “sourcing

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<sup>1</sup> The IPA Act, [20 ILCS 3855/1-1 et seq.](#), was added to the Illinois statutes by [P.A. 95-0481](#).

<sup>2</sup> 20 ILCS 3855/1-75(a)

<sup>3</sup> 20 ILCS 3855/1-75(d)(1)

<sup>4</sup> Section 1-75(d) and hence the CCPS was added to Section 1-75 of the IPA Act by [P.A. 95-1027](#). “Clean coal facilities” are electric generating facilities that use primarily coal as a feedstock and that capture and sequester certain proportions of their carbon dioxide emissions. For the more detailed statutory description, see n. 18, *infra*, or 20 ILCS 3855/1-10.

<sup>5</sup> 20 ILCS 3855/1-75(d)(1)

<sup>6</sup> *Id.*

agreements”) with such clean coal facilities.<sup>7</sup> According to Section 1-75(d)(2) of the IPA Act, “the total amount paid under sourcing agreements with clean coal facilities ... shall be reduced by an amount necessary to limit the annual estimated average net increase due to the costs of these resources included in the amounts paid by eligible retail customers in connection with electric service to” certain percentages of prior year retail rates.<sup>8</sup> Starting in 2014, the limitation has been “the greater of (i) 2.015% of the amount paid per kilowatt-hour by those customers during the year ending May 31, 2009 or (ii) the incremental amount per kilowatt-hour paid for these resources in 2013.”<sup>9</sup> The current percentage limitation translates into rate increases of 0.2169 cents per kilowatt-hour (“kWh”) for Ameren’s customers and 0.2382 cents per kWh for ComEd’s customers.<sup>10</sup>

The IPA Act requires the Commission to review the limitation, providing in pertinent part that

No later than June 30, 2015, the Commission shall review the limitation on the total amount paid under sourcing agreements, if any, with clean coal facilities pursuant to this subsection (d) and report to the General Assembly its findings as to whether that limitation unduly constrains the amount of electricity generated by cost-effective clean coal facilities that is covered by sourcing agreements.<sup>11</sup>

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<sup>7</sup> 20 ILCS 3855/1-75(d)(2)

<sup>8</sup> *Id.* Also note: “Eligible retail electric customers,” according to the Public Utilities Act (“PUA”) are “those retail customers that purchase power and energy from the electric utility under fixed-price bundled service tariffs, other than those retail customers whose service is declared or deemed competitive under Section 16-113 and those other customer groups specified in this Section, including self-generating customers, customers electing hourly pricing, or those customers who are otherwise ineligible for fixed-price bundled tariff service.” [220 ILCS 5/16-111.5\(a\)](#)

<sup>9</sup> 20 ILCS 3855/1-75(d)(2)(E)

<sup>10</sup> ICC Docket No. 13-0034, Illinois Power Agency, Benchmark Release Pursuant To Order, p. 2. <http://www.icc.illinois.gov/docket/files.aspx?no=13-0034&docId=200633>

<sup>11</sup> 20 ILCS 3855/1-75(d)(2)

In accordance with the above provision, the Commission has reviewed the statute's limitation and hereby submits to the General Assembly the Commission's findings as to whether the statute's limitation unduly constrains the procurement of electricity generated by cost-effective clean coal facilities. In brief, the Commission finds that the statute's limitation **does constrain** but **does not unduly constrain** the procurement of electricity generated by cost-effective clean coal facilities.

### Summary of Main Findings and Recommendations

- Three proposed clean coal facility projects have come to the Commission's attention. None has progressed to the construction phase.
  - The "Taylorville Energy Center," proposed in 2007 to be located in Taylorville;
  - The original "FutureGen" project, proposed in 2003 to be located in Mattoon; later restructured as "FutureGen 2.0," proposed in 2010 to be located in Meredosia; and
  - A plant currently being considered for development by Sargas, Inc., proposed to be located in Mattoon.
- For the first project listed above, the spending limitation in the Illinois CCPS does not appear to have been a factor preventing the project from entering the construction phase. The Taylorville Energy Center ("TEC") was proposed by its developers (associated with Tenaska, Inc.) to be the "initial clean coal facility." As such, requiring Illinois utilities and alternative retail electric suppliers to enter into sourcing agreements with TEC required explicit approval from the General Assembly,<sup>12</sup> which never occurred.
- The original FutureGen project, which relied heavily on federal funding, lost that funding in 2008, prior to the June 1, 2009 effective date of Illinois' CCPS. The restructured project, FutureGen 2.0, was included within the IPA procurement plan filed in 2012 and was approved by the Commission. FutureGen 2.0, like the original FutureGen project, relied heavily on federal funding – approximately \$1 billion. Even with that support, it was found that the project would consume approximately 65% of the spending limitation (assuming no cost overruns). Since then, the Commission's orders have been appealed<sup>13</sup> (issues on appeal are unrelated to the spending

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<sup>12</sup> 20 ILCS 3855/1-75(d)(4)(iii)

<sup>13</sup> See Commonwealth Edison Co., et al., v. Illinois Power Agency, et al., IL Sup. Ct. No. 118129

limitation). In February 2015, FutureGen 2.0 lost its federal funding, without which the spending limitation would most likely be exceeded.

- The Sargas project was mentioned in the IPA's most recent procurement plan, which was filed by the IPA in 2014. However, the IPA did not include a proposal to develop a sourcing agreement with Sargas, due, at least in part, to the spending limitation.
- With the existing spending limitation, the IPA Act's goal of acquiring 25% of affected customers' electricity demand through clean coal facilities is extremely unlikely to be met. Without a spending limit, meeting the 25% goal would be prohibitively expensive. For example, assuming purchases from clean coal facilities that are each comparable in size, cost and federal support to FutureGen 2.0 and are together sufficient to generate 25% of the State's electricity demand, it is estimated that retail rates would increase by approximately 44%. Without any federal funding, such purchases would increase retail rates by substantially more.
- The Commission believes that the existing policy strikes a reasonable balance between the competing goals of keeping electricity prices affordable **and** encouraging clean coal technologies.

## I. Introduction

The Illinois Power Agency Act (“IPA Act”) created the Illinois Power Agency (“IPA”) and directed it, subject to Commission approval, to create and implement electric procurement plans on behalf of electric utilities that provided electric service to at least 100,000 customers in Illinois on December 31, 2005.<sup>14</sup> As noted above, the only utilities which provided electric service to that number of customers on that date are Commonwealth Edison Company (“ComEd”) and Ameren Illinois Company (“Ameren”).<sup>15</sup> To a large extent, IPA procurement plans are focused on securing electricity for the “eligible retail customers”<sup>16</sup> of ComEd and Ameren. By definition, the class of “eligible retail customers” excludes customers served by “alternative retail electric suppliers” (“ARES”).<sup>17</sup> However, some provisions of the IPA Act also require the IPA to procure on

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<sup>14</sup> 20 ILCS 3855/1-75(a)

<sup>15</sup> Other electric utilities may request that the IPA procure all or part of their wholesale electricity needs. See 20 ILCS 3855/1-20(a)(1)

<sup>16</sup> “Eligible retail electric customers” are “those retail customers that purchase power and energy from the electric utility under fixed-price bundled service tariffs, other than those retail customers whose service is declared or deemed competitive under Section 16-113 and those other customer groups specified in this Section, including self-generating customers, customers electing hourly pricing, or those customers who are otherwise ineligible for fixed-price bundled tariff service.” 20 ILCS 5/16-111.5(a). For practical purposes, eligible retail customers are those residential and small non-residential customers who are not served by ARES.

<sup>17</sup> “Alternative retail electric supplier” means every person, cooperative, corporation, municipal corporation, company, association, joint stock company or association, firm, partnership, individual, or other entity, their lessees, trustees, or receivers appointed by any court whatsoever, that offers electric power or energy for sale, lease or in exchange for other value received to one or more retail customers, or that engages in the delivery or furnishing of electric power or energy to such retail customers, and shall include, without limitation, resellers, aggregators and power marketers, but shall not include (i) electric utilities (or any agent of the electric utility to the extent the electric utility provides tariffed services to retail customers through that agent), (ii) any electric cooperative or municipal system as defined in Section 17-100 to the extent that the electric cooperative or municipal system is serving retail customers within any area in which it is or would be entitled to provide service under the law in effect immediately prior to the effective date of this amendatory Act of 1997, (iii) a public utility that is owned and operated by any public institution of higher education of this State, or a public utility that is owned by such public institution of higher education and operated by any of its lessees or operating agents, within any area in which it is or would be entitled to provide service under the law in effect immediately prior to the effective date of this amendatory Act of 1997, (iv) a retail customer to the extent that customer obtains its electric power and energy from that customer's own cogeneration or self-generation facilities, (v) an entity that owns, operates, sells, or arranges for the installation of a customer's own cogeneration or self-generation facilities, but only to the extent the entity is engaged in owning, selling or arranging for the installation of such facility, or operating the facility on behalf of such customer, provided

behalf of **all** customers using the ComEd and Ameren distribution systems (i.e., including both eligible retail customers and customers served by ARES). One such set of provisions is found in Section 1-75(d) of the IPA Act, which sets forth a clean coal portfolio standard (“CCPS”), requiring purchases of electricity from “clean coal facilities.”<sup>18</sup>

While some provisions of the CCPS apply only to purchases for eligible retail customers, other provisions of the CCPS apply to purchases for all retail customers. To the extent which the CCPS involves purchases for eligible retail electric customers, Section 1-75(d)(2) specifies spending limits on purchases from clean coal facilities. In

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however that any such third party owner or operator of a facility built after January 1, 1999, complies with the labor provisions of Section 16-128(a) as though such third party were an alternative retail electric supplier, or (vi) an industrial or manufacturing customer that owns its own distribution facilities, to the extent that the customer provides service from that distribution system to a third-party contractor located on the customer's premises that is integrally and predominantly engaged in the customer's industrial or manufacturing process; provided, that if the industrial or manufacturing customer has elected delivery services, the customer shall pay transition charges applicable to the electric power and energy consumed by the third-party contractor unless such charges are otherwise paid by the third party contractor, which shall be calculated based on the usage of, and the base rates or the contract rates applicable to, the third-party contractor in accordance with Section 16-102.

An entity that furnishes the service of charging electric vehicles does not and shall not be deemed to sell electricity and is not and shall not be deemed an alternative retail electric supplier, and is not subject to regulation as such under this Act notwithstanding the basis on which the service is provided or billed. If, however, the entity is otherwise deemed an alternative retail electric supplier under this Act, or is otherwise subject to regulation under this Act, then that entity is not exempt from and remains subject to the otherwise applicable provisions of this Act. The installation, maintenance, and repair of an electric vehicle charging station shall comply with the requirements of subsection (a) of Section 16-128 and Section 16-128A of this Act.

For purposes of this Section, the term "electric vehicles" has the meaning ascribed to that term in Section 10 of the Electric Vehicle Act. (220 ILCS 5/16-102)

<sup>18</sup> “‘Clean coal facility’ means an electric generating facility that uses primarily coal as a feedstock and that captures and sequesters carbon dioxide emissions at the following levels: at least 50% of the total carbon dioxide emissions that the facility would otherwise emit if, at the time construction commences, the facility is scheduled to commence operation before 2016, at least 70% of the total carbon dioxide emissions that the facility would otherwise emit if, at the time construction commences, the facility is scheduled to commence operation during 2016 or 2017, and at least 90% of the total carbon dioxide emissions that the facility would otherwise emit if, at the time construction commences, the facility is scheduled to commence operation after 2017. The power block of the clean coal facility shall not exceed allowable emission rates for sulfur dioxide, nitrogen oxides, carbon monoxide, particulates and mercury for a natural gas-fired combined-cycle facility the same size as and in the same location as the clean coal facility at the time the clean coal facility obtains an approved air permit. All coal used by a clean coal facility shall have high volatile bituminous rank and greater than 1.7 pounds of sulfur per million btu content, unless the clean coal facility does not use gasification technology and was operating as a conventional coal-fired electric generating facility on June 1, 2009 (the effective date of Public Act 95-1027).” (20 ILCS 3855/1-10)

particular, spending must be limited to the extent necessary to prevent retail rates from increasing by more than certain percentages:

(A) in 2010, no more than 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009;

(B) in 2011, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2010 or 1% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009;

(C) in 2012, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2011 or 1.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009;

(D) in 2013, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2012 or 2% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009; and

(E) thereafter, the total amount paid under sourcing agreements with clean coal facilities pursuant to the procurement plan for any single year shall be reduced by an amount necessary to limit the estimated average net increase due to the cost of these resources included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of (i) 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009 or (ii) the incremental amount per kilowatthour paid for these resources in 2013. These requirements may be altered only as provided by statute.<sup>19</sup>

Based on the above provisions, current retail rates may not increase by more than 0.2169 cents per kWh for Ameren's eligible retail customers and 0.2382 cents per kWh for ComEd's as a result of utility purchases from clean coal facilities.<sup>20</sup>

## **II. Types of Clean Coal Facilities**

Under the CCPS, there are three categories of clean coal facilities: (1) the "initial clean coal facility"; (2) retrofit clean coal facilities; and (3) all other clean coal facilities.

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<sup>19</sup> 20 ILCS 3855/1-75(d)(2)(A)-(E)

<sup>20</sup> See n. 10, *supra*.

**A. The Initial Clean Coal Facility**

Illinois statutes are clear that both utilities **and** ARES are required to enter into sourcing agreements with the initial clean coal facility.<sup>21</sup> The wholesale purchase quantities from the facility would be allocated in proportion to each buyer's retail sales, except to the extent that purchases by a utility would result in the spending limitation (e.g. 0.2169 cents per kWh for Ameren's eligible retail customers or 0.2382 cents per kWh for ComEd's) being exceeded. In such cases, the utility's required purchases would decrease and the ARES' required purchases would increase. The IPA Act also specifies that a proposed sourcing agreement with the initial clean coal facility may not take effect unless and until it is specifically approved by the General Assembly.<sup>22</sup>

In 2007, the Taylorville Energy Center ("TEC") was proposed by its developers (associated with Tenaska, Inc.) to be the "initial clean coal facility." Pursuant to the terms of Section 1-75(d)(4) of the IPA Act, a facility cost study was prepared by TEC's developers and provided to the IPA and the Commission in February 2010; it was analyzed by the IPA and the Commission (as well as an outside consultant); and, on September 1, 2010, the Commission sent a report of that analysis to the General Assembly.<sup>23</sup> The proposed sourcing agreements cannot take effect unless, "based on the facility cost report and the Commission's report, the General Assembly enacts authorizing legislation approving (A) the projected price, stated in cents per kilowatthour, to be charged for electricity generated by the initial clean coal facility, (B) the projected impact on residential and small business customers' bills over the life of the sourcing

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<sup>21</sup> 20 ILCS 3855/1-75(d)(3); 220 ILCS 5/16-115(d)(5)(iv)

<sup>22</sup> 20 ILCS 3855/1-75(d)(3)

<sup>23</sup> TEC's facility cost report, the Commission's report, and related documents, are available on the ICC's web site: <http://www.icc.illinois.gov/electricity/tenaska.aspx>.

agreements, and (C) the maximum allowable return on equity for the project.”<sup>24</sup> The General Assembly did not enact such authorizing legislation.<sup>25</sup>

While the Commission has no information regarding whether the General Assembly’s decision not to authorize the sourcing agreements was related to the IPA Act’s spending limitation, the Commission’s 2010 report concluded that “the rate impacts on residential and small business customers will likely approach or meet the full 2.015% rate impact cap.”<sup>26</sup> However, the report included many other findings and offered information regarding many others issues associated with the proposed initial clean coal facility, the proposed sourcing agreement, and the law itself. By way of example, the 2010 report noted that: (1) further clarity was needed on TEC’s carbon sequestration plans and costs; (2) the cost associated with electricity generated by the TEC would be substantially higher than that associated with other types of generation facilities, including

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<sup>24</sup> 20 ILCS 3855/1-75(d)(4)(iii)

<sup>25</sup> Since the IPA Act requires the “initial clean coal facility” to have “a nameplate capacity of at least 500 MW” and “a final Clean Air Act permit on the effective date of this amendatory Act of the 95th General Assembly” (PA 95-1027, June 1, 2009), no project other than TEC can qualify as “initial clean coal facility” without amendments to the IPA Act.

<sup>26</sup> While some details of the 2010 analysis of TEC’s retail rate impact included confidential and proprietary work papers, it should be noted that the forecasts of electricity prices used in that analysis were relatively optimistic from the generating company’s perspective. As a result, future rate impacts were probably understated. For instance, in the first year of planned TEC operation, 2015, the analysis showed average energy market revenues that were two to almost three times actual average annual prices over the last six years (2009 through 2014) in a relevant market (PJM’s day-ahead Northern Illinois Hub energy market). Furthermore, as of April 23, 2015, the NYMEX futures market reflects an expectation that, in 2015, those energy prices will average well under half those used in the 2010 analysis of TEC. The 2010 analysis of TEC also projected TEC’s average energy revenues would increase between 2015 and 2040 at a higher rate than the U.S. Energy Information Administration is currently predicting in its reference-case electric generation price long-range forecast, released in April 2015. Under these more recent and more moderate indications of electric market prices, cost-based payments to TEC would be projected to increase Illinois retail rates by a percentage well in excess of the spending limitation imposed by the IPA Act.

wind, nuclear, and combined cycle natural gas plants<sup>27</sup>; and (3) the risk of cost overruns would be disproportionately borne by ratepayers.<sup>28</sup>

Without the assurance afforded by long-term sourcing agreements, other guarantees of equally substantial government support, or major changes in relevant market prices, TEC has not proceeded to construction.

### **B. Retrofit Projects**

The original FutureGen project was proposed as a public-private partnership; the U.S. Department of Energy (“DOE”) would provide much of the funding. However, the federal funding for the original project was canceled by DOE in 2008, prior to the Illinois CCPS becoming effective on June 1, 2009. Hence, the original FutureGen project never came before the Commission under the CCPS provisions of the IPA Act.

However, by 2010, the FutureGen project had been restructured and renamed FutureGen 2.0. More than half the project’s capital (approximately \$1 billion) would be provided by the federal government. As restructured, FutureGen 2.0 involved the re-powering and retrofitting of a power plant that was previously owned by an Illinois utility, thus invoking Section 1-75(d)(5) of the IPA Act.<sup>29</sup>

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<sup>27</sup> According to the most recent estimates by the U.S. Energy Information Administration and by the financial advisory and asset management firm, Lazard, the levelized cost of new utility-scale solar photovoltaic resources is also now less than the levelized cost of integrated coal gasification combined cycle plants with carbon capture and sequestration (the TEC design). Links: [http://www.eia.gov/forecasts/aeo/electricity\\_generation.cfm](http://www.eia.gov/forecasts/aeo/electricity_generation.cfm) (Table 1); <http://www.lazard.com/PDF/Levelized%20Cost%20of%20Energy%20-%20Version%208.0.pdf>.

<sup>28</sup> The risk of cost overruns is significant. A power plant with a similar design is currently under construction in Kemper County, Mississippi, for Mississippi Power Company. In January 2009, when the company petitioned the Mississippi Public Service Commission for a certificate to build the project, the company estimated the total construction cost would total \$2.2 billion. ([MPSC Docket No. 2009-UA-0014, Mississippi Power Company, January 16, 2009, Exhibit KDF-2](#), Section 1.3) Construction began in 2010. By April 2015, the company had already spent over \$5.3 billion and estimated the total construction cost would reach \$6.2 billion by its projected commercial operation date in 2016. ([MPSC Docket No. 2009-UA-0014, Mississippi Power Company, Monthly Status Report, April 1, 2015](#))

<sup>29</sup> 20 ILCS 3855/1-75(d)(5)

Unlike sourcing agreements with the initial clean coal facility, sourcing agreements with retrofit projects do not require case-by-case approval by the General Assembly. Instead, the law authorizes the Commission to approve or decline to approve proposed retrofit projects included in IPA procurement plans. Pursuant to the IPA procurement process, the owners of retrofit facilities may request approval of sourcing agreements with “utilities and alternative retail electric suppliers required to comply with ... [Section 1-75(d) of the IPA Act] and ... Section 16-115[(d)(5)] of the Public Utilities Act, covering electricity generated by such facilities.”<sup>30</sup> As part of its procurement plan filed in 2012, the IPA included a proposal to require the utilities and ARES to enter into such sourcing agreements with FutureGen 2.0. In its December 19, 2012 Order in ICC Docket No. 12-0544, the Commission approved the IPA’s proposal.<sup>31</sup> The Commission also approved certain terms of the sourcing agreement, a 10% return on equity, and the capital structure consisting of 55% debt and 45% equity. Further details of the sourcing agreement were approved in the Commission’s July 26, 2013 Order in Docket No. 13-0034.<sup>32</sup>

Key portions of the Commission’s orders were appealed.<sup>33</sup> Then, in February 2015, DOE suspended the project’s federal funding.<sup>34</sup> According to a press release issued by U.S. Senator Dick Durbin’s office, “the Department of Energy has been forced to cancel federal funding for the FutureGen project due to the FutureGen Alliance’s failure to find agreement with the private partners before the expiration of the \$1 billion in funding

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<sup>30</sup> 20 ILCS 3855/1-75(d)(5)

<sup>31</sup> <http://www.icc.illinois.gov/downloads/public/edocket/337569.pdf>

<sup>32</sup> <http://www.icc.illinois.gov/downloads/public/edocket/352480.pdf>

<sup>33</sup> See n. 13, *supra*.

<sup>34</sup> <http://energy.gov/fe/science-innovation/clean-coal-research/major-demonstrations/futuregen-20>

that was secured for the public-private partnership as part of the American Recovery and Reinvestment Act.”<sup>35</sup>

Without the \$1 billion in government funding or major changes in relevant market prices, sourcing agreements between FutureGen 2.0 and Illinois ARES and utilities would most likely cause retail rates to exceed the limitations established in the IPA Act (e.g. 0.2169 cents per kWh for Ameren’s eligible retail customers or 0.2382 cents per kWh for ComEd’s).<sup>36</sup> Thus, without the \$1 billion in government funding or major changes in relevant market prices, it appears unlikely that FutureGen 2.0 will proceed to construction.

### **C. All Other Clean Coal Facilities**

The initial clean coal facility and retrofit clean coal facilities are special cases described in the CCPS. The Sargas project, which was mentioned in the IPA’s most recent procurement plan, fits into neither of those two categories. While the project was mentioned in the 2014-filed plan, the IPA did not include a proposal to develop a sourcing agreement with Sargas. This appears to have been based on the following considerations.

First, at the time that the IPA filed its plan, FutureGen 2.0’s federal funding had not yet been suspended. Accordingly, at the time the plan was submitted, it was more likely that FutureGen 2.0 would be built, meaning that its developers would be entering into sourcing agreements with the Illinois utilities and ARES, and the rate impact for eligible retail customers would be approximately 65% of the spending limit imposed by the IPA Act, leaving only 35% for a second project.

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<sup>35</sup> <http://www.durbin.senate.gov/newsroom/press-releases/durbin-statement-on-futuregen-announcement>

<sup>36</sup> This conclusion is based in ICC Staff calculations and involves no other changes in the assumptions that were used in 2013 to evaluate the project’s impact on retail rates, including construction costs and market prices for fuels and electricity.

Second, it appeared that Sargas expected to enter into sourcing agreements with both utilities and ARES. However, according to the IPA's analysis, there was no legal basis upon which to compel ARES to enter into sourcing agreements with Sargas (as opposed to the initial clean coal facility or a retrofit facility). Thus, any wholesale price premiums paid to Sargas would have to be recovered from a much smaller universe of customers (the eligible retail customers served by the utilities), requiring a much higher retail price increase for eligible retail customers.<sup>37</sup>

Under these circumstances, the IPA appears to have concluded that requiring the utilities to enter into sourcing agreements with Sargas (recovering the costs solely from eligible retail customers) would almost surely result in the law's rate impact limitation being exceeded. Arguably, that conclusion may have been reached prematurely, since it does not appear that Sargas provided a facility cost report to the IPA. On the other hand, without any such report to review, it is understandable how and why the IPA came to such a conclusion, at least on an interim basis. Sargas, or any other clean coal facility developer, may certainly make a case in the future to the IPA that project cost recovery could be reasonably expected to fall within the spending limitations of the law.

### **III. Prospects for Reaching the 25% Clean Coal Goal**

As previously noted, the IPA Act makes it a goal of the State that by January 1, 2025, 25% of the electricity used in the State shall be generated by cost-effective clean coal facilities. However, among low-carbon emitting electric generating resources, clean

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<sup>37</sup> Generally, sales to eligible retail electric customers are now less than one-quarter (1/4) of total deliveries, so the retail price increase needed to recover incremental clean coal costs from eligible retail electric customers alone would be more than four (4) times the price retail price increase needed to recover incremental clean coal costs from all electric customers.

coal technologies are among the most expensive.<sup>38</sup> Thus, with the IPA Act's spending limit, it is unlikely that the IPA Act's 25% goal will be met; and without a spending limit, meeting the 25% goal would be prohibitively expensive. In further support of this assessment, we use FutureGen 2.0 as a model.<sup>39</sup>

While fully operational, FutureGen 2.0 would generate approximately 0.73% of the affected customers' projected energy demand. To generate 25% of affected customers' projected energy demand, clean coal projects with a total generating capacity of 34.25 (i.e.,  $25/0.73$ ) times that of FutureGen 2.0 would be required. Before it was withdrawn in February 2015, approximately \$1 billion in federal support had been pledged for FutureGen 2.0. Even with that support, it was estimated that sourcing agreements with FutureGen 2.0 would increase retail rates by approximately 0.1462 cents/kWh in 2018 and by 0.1648 cents/kWh in 2036.<sup>40</sup> This represents an average retail rate increase of approximately 1.35%, based on a weighted average of the Ameren and ComEd reference year rates. Therefore, achieving the 25% goal with such projects would increase rates by approximately 46% (i.e.,  $34.25$  times 1.35%) and would require \$34.25 billion in federal support. Without any federal funding, such purchases would increase retail rates by substantially more.

Of course, all such conclusions are subject to uncertainty and depend on assumptions about the actual realized cost of clean coal facilities, the availability of

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<sup>38</sup> See n. 27, *supra*.

<sup>39</sup> While we might also look to the TEC as a model, we choose not to do so because TEC was designed to capture only 50% of its carbon dioxide emissions. Since the IPA Act requires clean coal facilities scheduled to commence operating after 2017 to capture at least 90% of their CO<sub>2</sub> emissions, TEC would not be an eligible clean coal facility.

<sup>40</sup> ICC Docket No. 13-0034, Illinois Power Agency, Benchmark Release Pursuant To Order, p. 2. <http://www.icc.illinois.gov/docket/files.aspx?no=13-0034&docId=200633>

federal subsidies, and especially about future wholesale market electricity prices. However, even if market prices were to increase by 12% per year, every year for 20 years, they would still be lower than the estimated average cost of FutureGen 2.0's electricity output.

#### IV. Conclusions and Recommendations

Barring extraordinary changes in costs and prices, experience to date suggests that the IPA Act's spending limitation provides enough room for only one or at the most two clean coal facilities capable of supplying up to one or two percent of total energy demand within the ComEd and Ameren service territories. Nevertheless, it is the Commission's opinion that a statutory restriction on incremental (above-market price) spending on electricity generated by clean coal facilities is appropriate to protect the interests of Illinois consumers of electricity. The existing spending cap in Section 1-75(d) of the IPA Act is intended to ensure that retail rates will not increase by more than about 2% of the average customer's total bill. While 2% may seem modest in abstract terms, when it is applied to an element of the Illinois economy as large and crucial as the electric utility sector, it amounts to approximately \$300 million per year.<sup>41</sup> With such sums at stake, it is the Commission's opinion that increases in (or the abolition of) the CCPS spending limit should be avoided.

In assessing whether the spending limit "*unduly*" constrains purchases of electricity from clean coal facilities, the Commission has taken note of the IPA Act's legislative declarations and findings, especially:

The health, welfare, and prosperity of all Illinois citizens require the provision of adequate, reliable, affordable, efficient, and environmentally sustainable

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<sup>41</sup> This figure is based on recent years' sales statistics and also assumes that the same subsidies per kWh are paid by all customers of each utility (eligible retail customers and ARES customers, alike).

electric service at the lowest total cost over time, taking into account any benefits of price stability.<sup>42</sup>

Escalating prices for electricity in Illinois pose a serious threat to the economic well-being, health, and safety of the residents of and the commerce and industry of the State.<sup>43</sup>

The Commission views the spending limit imposed on clean coal projects as an appropriate tool to ensure that clean coal technology is encouraged, without endangering the “welfare and prosperity” of Illinois citizens or their continued access to “affordable electric service at the lowest total cost over time” by lessening the threat of “[e]scalating prices for electricity in Illinois.”

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<sup>42</sup> 20 ILCS 3855/1-5(1)

<sup>43</sup> 20 ILCS 3855/1-5(3)