

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

<b>Illinois Commerce Commission</b>	)	
<b>On Its Own Motion</b>	)	
	)	
<b>vs.</b>	)	
	)	<b>Docket No. 05-0743</b>
<b>Illinois Power Company</b>	)	
<b>d/b/a AmerenIP</b>	)	
	)	
<b>Reconciliation of revenues collected under</b>	)	
<b>gas adjustment charges with actual costs</b>	)	
<b>prudently incurred.</b>	)	

**AmerenIP's  
Brief on Exceptions to the  
Administrative Law Judge's Proposed Order**

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## **I. INTRODUCTION AND SUMMARY OF EXCEPTIONS**

Illinois Power Company d/b/a AmerenIP (“AmerenIP” or “IP”) submits this Brief on Exceptions to the Administrative Law Judge’s (“ALJ”) Proposed Order (“PO”). IP takes exception to the PO’s conclusion that IP acted imprudently in its response to deliverability problems encountered at its Hillsboro Storage Field (“HSF”).<sup>1</sup> (PO, pp. 31-33.) Specifically, the PO adopts the Commission’s conclusions in IP’s reconciliation cases for 2003 and 2004, Dockets 03-0699 and 04-0677, that IP acted imprudently in connection with the investigation, identification and remediation of the declines in deliverability that occurred at HSF:

Having reviewed the record in the instant case, as well as the findings in the Commission Orders in Dockets 03-0699 and 04-0677 and the decision of the Appellate Court affirming those orders, the Commission again finds that IP did not act prudently in connection with the investigation, identification and remediation of the decline in the deliverability of the Hillsboro Storage Field. The Commission again concludes, as it did in Docket 03-0699, that IP failed to conduct a thorough study of the injection error at the time it was identified and also failed to conduct inspections to assure that the orifice meters were working properly. The Commission also finds that the overall storage concerns identified by Staff indicate that IP’s actions or lack thereof contributed to the problems experienced at the Hillsboro field.

In conclusion, the Commission agrees with Staff that IP acted imprudently in its response to the deliverability problems at the Hillsboro Storage Field and should have begun replacement of the Hillsboro inventory in 2000 rather than waiting until 2003. As indicated by Staff, the gas IP purchased in 2005 to make up for this reduced seasonal withdrawal capacity was more expensive than the inventory replacement gas would have been, causing the Company to incur additional gas costs of \$631,515 during the reconciliation period. As such, this amount was imprudently incurred, and should not be charged to ratepayers. (PO, pp. 31-32.)

The PO’s conclusion is flawed because it relies, as the above quote shows, on the Commission’s decisions in two prior dockets and the Appellate Court decision in the appeal from

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<sup>1</sup> On October 1, 2010, after the record closed in this case, IP and the other two Ameren utilities in Illinois were merged into a single corporation, Ameren Illinois Company. IP no longer exists as a separate corporate entity. However, for consistency with the record and prior pleadings in this docket, the utility will continue to be referred to as “IP” or “AmerenIP” in this Brief.

those dockets, rather than basing its decision solely on the record compiled in this case, as required by law. The record in this docket shows that the IP acted prudently in the investigation, identification and remediation of the HSF deliverability problems, and that Staff's arguments that IP was imprudent are not supported by the record.

As the quoted conclusion from the PO indicates, Staff contended that IP was imprudent because it should have, but did not, begin to inject replacement inventory into HSF in 2000 to replace inventory that had been depleted (it was ultimately determined) due to an error in the functioning of the main plant injection meters. However, as shown in this Brief on Exceptions:

- Staff's principal contention – that in 1999 or 2000 IP should have used temperature and pressure data from recording charts at the individual injection/withdrawal (“I/W”) wells at HSF to determine that there had been a substantial inventory depletion due to the over-registration by the main plant injection meters – is not supported by the record. Among numerous flaws, Staff's argument that IP was imprudent for not relying on the I/W well chart data is contradicted by Staff's own testimony and the Commission's conclusion in a previous case, Docket 04-0476, that the I/W well chart data was too inaccurate, unreliable and incomplete to be used to estimate the gas volumes that had been injected into HSF.
- Further, the record in this case shows that it would have been *imprudent* for IP to begin injecting replacement inventory in 2000, because the information available to IP at the time indicated the HSF deliverability issue could be due to a breach or other structural problem with the underground reservoir that was causing gas injected into HSF to migrate to areas where it could not be reached by the withdrawal wells.
- Although it is debatable whether IP should have inspected the HSF *withdrawal* meters more frequently (Staff's argument that IP should have inspected the withdrawal meters more frequently is based on a Commission regulation and an industry standard that are *not applicable* to the storage field withdrawal meters), the record in this docket shows that the one problem with a withdrawal meter that was discovered in 1999 (and which IP promptly fixed) had *nothing to do* with the cause of the HSF deliverability issue, which was solely due to the over-registration by the main plant *injection* meters.
- The record in this case shows that Staff's other “overall storage concerns” were not well-founded and did not show imprudence even considered in isolation; more importantly, the record shows *no causal connection* between any of the “overall storage concerns” and the HSF deliverability issue, nor with the speed and prudence with which IP investigated, identified and remediated the cause of the deliverability issue. Among other things:

- As shown by the detailed discussion, presented for the first time in this docket, of the cause of the one-year capacity reduction at IP's Shanghai Storage Field in the 2001-02 winter season, the metering error that occurred at Shanghai was not the cause of its one-year capacity reduction (which the Commission found in a prior Order was not caused by imprudence), and was a different metering problem than occurred at the HSF main plant injection meters. The Shanghai metering error was *not* a precursor of the HSF injection metering error.
- As the detailed history of IP's gas storage field organization presented for the first time in this docket shows, IP did not (contrary to Staff's contention) imprudently reduce its storage field staffing; further, the record provides no basis to conclude that IP did not determine the cause of the HSF deliverability issues sooner due to insufficient personnel or other resources.
- Contrary to Staff's contentions, IP did not fail to determine the cause of the HSF deliverability issue earlier due to a reduction in its storage field capital expenditures; rather, the record shows that IP devoted substantial resources to its investigation of the cause of the HSF deliverability issue. Further, the time period in which, Staff claims, IP unduly reduced its storage field capital expenditures occurred *after* the time Staff contends IP should have discovered the cause of the HSF deliverability issue. Moreover, IP increased its storage field operation and maintenance expenditures over the period in question, a fact Staff ignored.
- The record shows IP promptly and thoroughly investigated, and implemented extensive corrective actions in response to, an unrelated occurrence at HSF in December 2000. IP's corrective actions fully addressed, and will prevent recurrence of, the conditions Staff contends were the root cause of the December 2000 incident. Staff acknowledged in this case that the sufficiency of IP's corrective actions for the December 2000 event has never been questioned.
- Overall, the record in this docket shows IP acted prudently and diligently in its investigation, identification and remediation of the HSF deliverability issues, and that the fact that IP did not determine the deliverability issues were due to the main plant injection meter over-registration, and begin to replace the inventory, until 2003, was not due to imprudence.<sup>2</sup>
- Staff's arguments (which the PO accepts) that IP was imprudent are based in hindsight. In presenting its testimony, Staff – unlike IP in 1999-2002 – had the luxury of presenting its arguments *knowing* that the HSF deliverability issue was caused by the main plant injection meter over-registration, and was not caused by a leak or breach in, or other structural problem with, the underground reservoir or the

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<sup>2</sup> It is not disputed that replacing the depleted inventory would take several years and, therefore, if IP were prudent in starting to refill the inventory in 2003, the additional purchased gas costs in 2005 were not imprudent. Additionally, the record shows that if the Commission were to conclude that IP prudently should have started to inject replacement inventory in 2002 (rather than 2000 or 2003), there would be \$39,385 of imprudent gas costs attributable to 2005. (*See* AmerenIP Ex. 2.3, p. 4; AmerenIP Ex. 2.5; and IP Initial Brief (“Init. Br.”), p. 1 note 1.)

withdrawal wells that were indicated in 1999-2002, based on the knowledge and circumstances available to IP at the time, to be possible causes of the deliverability decline. Staff's arguments comprise, at most, a difference of opinion as to what actions IP should have taken during the period under review, and are not an appropriate application of the prudence standard.

IP acknowledges that, in Dockets 03-0699 and 04-0677, the Commission found IP was imprudent in failing to begin injecting replacement inventory into HSF in 2000, and that the Appellate Court affirmed those orders.<sup>3</sup> Although IP believed the orders in those two dockets and the Appellate Court decision were flawed, IP elected not to seek further judicial review.<sup>4</sup> However, by deciding not to pursue further judicial review of those prior orders, IP did not forfeit its right to have the Commission's decision in *this docket* be based on the record compiled in *this docket*. Based on the record compiled in *this docket*, the Commission should find that IP acted prudently in its investigation, identification and remediation of the HSF deliverability issues and that no imprudent gas costs were incurred in 2005.

## **II. THE COMMISSION'S ORDER MUST BE BASED ON THE RECORD IN THIS DOCKET, NOT ON THE FINDINGS IN THE DOCKET 03-0699/04-0677 ORDERS OR THE APPELLATE COURT DECISION**

The law is clear that the Commission must base its decision in each case that comes before it on the record compiled in that docket, and that it is not bound by its decisions in a prior docket or dockets, even if the current case presents a similar, or even the same, fact situation as the earlier docket(s). Similarly, the law is clear that the Appellate Court, in reviewing a Commission decision, bases its review solely on the evidence compiled in the Commission

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<sup>3</sup> The Appellate Court decision is reported at 382 Ill.App.3d 195 (3rd Dist. 2008).

<sup>4</sup> As discussed at pp. 7-14 of the "Response of Illinois Power Company to Administrative Law Judge's June 7, 2010 Scheduling Ruling" in this docket ("IP 7/8/10 Response"), key assertions in the Appellate Court decision were not supported by the record in Docket 03-0699 or 04-0677 or were internally inconsistent. If the Commission, as it should, bases its decision in this docket on the record in this docket, the flaws in the Appellate Court decision need not come into play.

proceedings, and applies an extremely deferential standard of review to the Commission's decision – the Court does not reweigh the evidence and make an independent determination, but rather only reviews the agency's findings to determine if an opposite conclusion is “clearly evident.” As a result, the Commission, when considering a subsequent case, is not bound by its own or by the Appellate Court's decision in a prior case involving the same or similar facts, but rather must base its findings and conclusions on the record before it.

Section 10-103 of the Public Utilities Act (“PUA”), 220 ILCS 5/10-103, specifies that:

In all proceedings, investigations or hearings conducted by the Commission, except in the disposition of matters which the Commission is authorized to entertain or dispose of on an ex parte basis, any finding, decision or order made by the Commission *shall be based exclusively on the record for decision in the case*, which shall include only the transcript of testimony and exhibits together with all papers and requests filed in the proceeding . . . (emphasis added).

Consistent with this statutory requirement, it has long been established that decisions of the Commission are not *res judicata*, and that the Commission “shall have power to deal freely with each situation as it comes before it, regardless of how it may have dealt with a similar *or even the same situation in a previous proceeding*.”<sup>5</sup> Section 10-103 of the PUA plus the case law dictate that the Commission is not only free to, but must, decide Docket 05-0743 solely on the basis of the record decided in this case, without regard to its prior decisions in “a similar or even the same situation in a previous proceeding.”

In considering the significance to this docket of the Appellate Court's decision in the Docket 03-0699/04-0677 appeals, it must be kept in mind that the Court's scope and authority in reviewing decisions of the Commission are limited. The PUA mandates that “the findings and

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<sup>5</sup> *Mississippi River Fuel Corp. v. ICC*, 1 Ill.2d 509, 513 (1953) (emphasis added); *see also Citizens Utility Board v. ICC*, 166 Ill.2d 111, 125 (1995); *United Cities Gas Co. v. ICC*, 163 Ill.2d 1, 23 (1994); *Lakehead Pipeline Co. v. ICC*, 296 Ill.App.3d 942, 956 (3d Dist. 1998); *Abbott Labs., Inc. v. ICC*, 289 Ill.App.3d 705, 715 (1st Dist. 1997); *Peoples Gas, Light and Coke Co. v. ICC*, 175 Ill.App.3d 39, 51 (1st Dist. 1988).

conclusions of the Commission on questions of fact shall be held prima facie to be true and as found by the Commission,” and that “rules, regulations, orders or decisions of the Commission shall be held to be prima facie reasonable.” 220 ILCS 5/10-201(d). Where the appeal involves whether the Commission’s findings were supported by the record, the Appellate Court may reverse the Commission’s order only if determines that “the findings of the Commission are not supported by substantial evidence based on the entire record of evidence presented to or before the Commission.” 220 ILCS 5/10-201(e)(iv).<sup>6</sup>

In terms of what constitutes “substantial evidence” that requires the reviewing court to affirm the Commission’s findings and conclusions, the case law establishes that “substantial evidence” to support the Commission’s decision may be less than a preponderance of the evidence.<sup>7</sup> In a particular case, “substantial evidence” may support more than one possible finding, but the court must affirm the Commission’s decision if there is evidence supporting the particular decision reached by the Commission.<sup>8</sup> It is not sufficient grounds for reversal that the evidence in the record would support a conclusion different from the one reached by the Commission.<sup>9</sup> The Appellate Court emphasized this point in stating the standard of review for the Docket 03-0699/04-0677 Orders:

Merely showing that the evidence presented would support a different conclusion than the one reached by the Commission is not sufficient. Rather, the appellant must

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<sup>6</sup> See *People ex rel. Hartigan v. ICC*, 148 Ill.2d 348, 381 (1992); *Business and Professional People for the Public Interest v. ICC*, 146 Ill.2d 175, 196 (1991).

<sup>7</sup> *Citizens Utility Board v. ICC*, 291 Ill.App.3d 300, 304 (1st Dist. 1997); *Illinois Bell Tel. Co. v. ICC*, 283 Ill.App.3d 188, 200 (2d Dist. 1996); *People ex rel. O’Malley v. ICC*, 239 Ill.App.3d 368, 376 (2d Dist. 1993).

<sup>8</sup> *Central Illinois Public Service Co. v. ICC*, 268 Ill.App.3d 471, 479 (4th Dist. 1994).

<sup>9</sup> *Northern Moraine Wastewater Reclam. Dist. v. ICC*, 392 Ill.App. 3d 542, 556 (2d Dist. 2009).

affirmatively demonstrate that the opposite conclusion is “clearly evident.” (382 Ill.App.3d at 201).

Further, the reviewing court may not put itself in the position of the Commission, reweigh the evidence, make an independent determination of the issues presented by the case, or substitute its judgment for that of the Commission.<sup>10</sup>

In short, under the strict standards and limited scope of judicial review, the Appellate Court must affirm the Commission’s findings and conclusions if it finds there is sufficient evidence in the record to support them, *even though* the evidence supporting the Commission’s findings and conclusions is not a preponderance of the evidence, and *even though* there is substantial evidence in the record that would support a *different* conclusion than the one reached by the Commission. That is, even if the court were to determine that, based on the record, it could have found the evidence supported a different conclusion than the Commission reached, the court must nevertheless affirm the Commission’s conclusion if the court finds there was sufficient evidence (as defined by the case law summarized above) to support the Commission’s conclusion. The highly deferential standard of review is manifested in the Appellate Court’s statement of its conclusions concerning the Docket 03-0699/04-0677 orders:

[T]he Commission position that Illinois Power should have attempted to reinject the field in 2000 to test the metering corrections *is not unreasonable*. . . . Based on the entire record in both proceedings, a conclusion that Illinois Power was prudent *is not clearly evident*. (382 Ill.App.3d at 203 (emphasis supplied)).

Thus, the Appellate Court’s affirmance of the a Commission order means only that its conclusions passed the highly deferential standard of review.

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<sup>10</sup> *Illinois Central R. Co. v. Franklin County*, 387 Ill. 301, 319 (1944); *Citizens Utility Board v. ICC*, 291 Ill. App. 3d 300, 304 (1st Dist. 1997); *Abbott Labs., Inc. v. ICC*, 289 Ill. App. 3d 705, 718 (1st Dist. 1997); *Continental Mobile Tel. Co. v. ICC*, 269 Ill. App. 3d 161, 166 (1st Dist. 1994); *City of Milford v. ICC*, 45 Ill App. 3d 733, 737 (3rd Dist. 1977).

These statutory and case law principles, coupled with the statutory requirement that the Commission's decision in a case must be based solely on record compiled in that case and that the Commission's orders are not *res judicata*, means that the Commission, in evaluating the evidence and reaching its decision in a subsequent case (such as this docket), is not bound either by its own prior orders or by an Appellate Court decision affirming a prior order involving similar or even the same set of facts as the case now before the Commission. To the contrary, the Commission must base its decision in this case on the record compiled in this case.

Here, after stating that it is adopting the findings and conclusions in the Docket 03-0699/04-0677 orders, the PO adds the conclusory statement that "the Commission has duly considered the 'additional and different evidence' cited by IP [in this docket]. In the Commission's view, this evidence does not support a different outcome than is reflected in the ultimate conclusions contained above and in the Orders in Dockets 03-0699 and 04-0677 . . . ." (PO, pp. 32-33.) However, although the PO, at various points in its summary of the record, notes that certain evidence presented by IP and Staff was new or different from evidence in the prior cases, the PO fails to address how any of this evidence impacted the various issues and contentions in this case, other than in the above-quoted conclusory statement.<sup>11</sup>

While (as the PO notes at p. 32), the HSF issues in the 2003, 2004 and 2005 PGA cases involve the same underlying events, nonetheless, the record in each case is comprised of the evidence the parties presented in that particular case. In this case, IP presented additional and different evidence that it did not present in the prior cases on a number of key points, since the Commission apparently was not persuaded by IP's presentation in the earlier cases. Staff also

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<sup>11</sup> In its proposed revisions to the PO (Attachment 1 to this Brief), IP has expanded the PO's summary of the evidence in a number of places in order to show more fully the impact of the additional evidence presented in this docket.

presented some additional and different evidence.<sup>12</sup> IP is not seeking, and cannot seek, a different result at this point in time in the 2003 and 2004 PGA cases. IP is entitled, however, to have the instant, 2005 case decided on the basis of the record in this docket, not by adoption of the findings from the 2003 and 2004 cases. As the remainder of this Brief shows, the record in this docket demonstrates IP acted prudently in its investigation, identification and remediation of the causes of the HSF deliverability issue, and that Staff's arguments for a \$631,515 imprudence disallowance should be rejected.

**III. THE RECORD IN THIS DOCKET SHOWS THAT IP ACTED PRUDENTLY IN ITS INVESTIGATION, IDENTIFICATION AND REMEDIATION OF THE CAUSES OF THE HILLSBORO DELIVERABILITY ISSUE, AND THAT STAFF'S ARGUMENTS THAT IP WAS IMPRUDENT MUST BE REJECTED**

In its Initial Brief and Reply Brief in this docket, IP presented extensive discussions of the evidence and arguments in this proceeding. IP demonstrated that the evidence in the record of this docket showed IP had acted prudently in its investigation, identification and remediation of the causes of the HSF deliverability issue, and that Staff's arguments in support of its proposed imprudence disallowance were flawed, did not demonstrate IP was imprudent in its handling of the HSF deliverability issues, and must be rejected. In the following sections, IP summarizes the evidence that shows it acted prudently and that Staff's argument that IP was imprudent must be rejected, but also cites the applicable sections of its Initial and Reply Briefs, which contain more extensive discussions of the evidence and arguments.

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<sup>12</sup> A detailed discussion of the additional and different evidence in this record is contained in the IP 7/8/10 Response, which was submitted in response to the ALJ's ruling that directed filings be submitted to show, among other things: "If a Party is arguing that there are 'new points of evidence' on contested issues in Docket 05-0743 which differ from the evidence in Dockets 03-0699 and 04-0677, the Party shall identify those new points of evidence, with citations to the record, and shall explain how, if at all, such evidence supports the recommendations made by the Party." Notice of ALJ's Scheduling Ruling dated June 7, 2010.

### **A. The Record Shows IP Prudently and Aggressively Investigated the Cause of the HSF Deliverability Issue**

Prior to the 2005 reconciliation year, HSF experienced deliverability problems which were caused by (it was determined in 2003) an over-registration of gas injections on the main injection meters at HSF, which led to depletion of the storage field inventory. Over several years, less gas was injected into inventory than shown by the metering records; as a result, withdrawals from the storage field had depleted the gas inventory. Staff contended IP should have discovered the source of the problem in 2000 and should have begun to reinject gas inventory into HSF during the 2000 injection season to begin restoring the depleted inventory.

However, as detailed in §III.A-C (pp.11-54) of IP's Initial Brief, AmerenIP acted prudently in its investigation, management and resolution of the HSF deliverability issue. IP prudently and aggressively pursued the causes of the decline in gas deliverability from HSF that began in the mid-1990s. IP devoted significant attention and substantial internal and external resources to investigating the problem and identifying its causes. Based on the fact that the deliverability issue arose after the storage reservoir was significantly expanded in 1993, IP prudently focused on possible reservoir or structural causes, including the possibility of an unidentified sub-structure to which gas was migrating, losses of gas through leaks or fractures in the reservoir structure or caprock, unusual dispersion of injected gas rendering it inaccessible, and underground impediments in the area of withdrawal wells that limited the ability to access and withdraw gas. Based on industry experience, such structural problems with the underground storage reservoir are a frequent cause of declining storage field capability. IP also acted prudently and reasonably in refraining from beginning substantial reinjections of gas inventory while it was still investigating possible structural causes, since until these possible causes were fully investigated and eliminated (or confirmed), the reinjected gas could have been lost as well.

After conducting a number of studies and analyses to attempt to identify (or reject) potential leaks or other structural causes and eliminating these potential causes, IP determined in 2003 that the cause of the HSF deliverability decline was over-registration of gas injections by the main plant injection meters, so that for several years the meters had recorded significantly more gas being injected than was actually the case. IP had discovered and remediated the specific metering problem in 1999, but at that time underestimated the cumulative amount of the over-registration. In early 2003, as the result of its ongoing investigations and analyses of the HSF deliverability issue, IP eliminated all remaining possible structural or reservoir causes for the Hillsboro deliverability decline. IP then began reinjecting gas inventory in 2003. (IP Init. Br., §III.B, pp. 13-25.)

**B. The Record Shows Staff’s HSF-Specific Arguments that IP Should Have Discovered the Cause of the HSF Deliverability Issues and Commenced Reinjecting Inventory in 2000 Are Not Well-Founded and Should Be Rejected**

Staff contended that IP should have recognized the full extent of the injection meter over-registration, and started reinjecting replacement inventory, in 2000, even while it continued to investigate possible structural causes for the deliverability decline. Staff argued that IP had three “opportunities” to detect that the injection meter over-registration was much larger than originally believed, but failed to do so. However, each of Staff’s three arguments was made with the benefit of hindsight, failed to take into account all of (and only) the information and circumstances confronting IP at the time, and did not demonstrate any imprudence. (IP Init. Br., §III.C, pp. 25-45; IP Reply Br., §II.B, pp. 9-29.)

**1. Failure to Use I/W Well Chart Data in 1999-2000**

Staff’s principal contention in support of its imprudence argument was that in 1999 or 2000, after IP discovered the HSF main plant injection meters had been over-registering, IP

should have used temperature and pressure data it had retained from the individual I/W wells at HSF to estimate the amount of the main plant injection metering error and the resulting inventory depletion.<sup>13</sup> The PO accepts this argument. (PO, p. 31.) However, the record, including evidence introduced for the first time in this docket, shows that Staff's contention does not support a finding that IP was imprudent.

IP had available a limited number of the charts that had recorded the I/W well data for several of the years since HSF's capacity was expanded in 1993: 1994, 1995, 1998 and 1999. (AmerenIP Ex. 3.0, p. 25.) For example, IP had usable well chart data from only about 45 days in 1994. (*Id.*, pp. 23-24.) IP was aware of the existence of the I/W well chart data in 1999-2000, but did not use it to determine the amount of the main plant injection metering error because IP did not believe the I/W well chart data to be accurate or reliable or that its use would add any value to the estimate of the injection metering error that IP had developed through other means. (AmerenIP Ex. 3.2, pp. 13-14.) The I/W well chart data was unreliable and inaccurate as a means to estimate the volumes that had been injected into HSF for numerous reasons, as detailed in the testimony of IP's witnesses (AmerenIP Ex. 3.0, pp. 21-30; AmerenIP Ex. 3.2, pp. 11-14):

- The I/W well metering equipment was not intended to, and did not, measure gas volumes injected, but rather only recorded temperature and pressure data that the operators used for other purposes.
- The I/W well metering equipment was not set up in accordance with American Gas Association ("AGA") guidelines applicable to accurately recording volumes for custody transfer purposes.

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<sup>13</sup> Although the daily charts from the I/W wells recorded temperature and pressure data at each well (which was used by the operators for monitoring purposes), and did not record the volumes of gas injected, it was possible to use the temperature and pressure data to calculate the amount of gas injected at the well on that day. (AmerenIP Ex. 3.0, pp. 19-20.) Staff's contention was that IP should have used the calculated injection volumes from the individual wells to compare to the injection amounts recorded on the main plant meters, to determine the amount of the main plant injection metering error and thus the resulting HSF inventory shortfall.

- To use the I/W well data to determine the amount of gas injected to HSF on a day, it was necessary to have the well charts from that day for all 14 I/W wells, but this data had not been systematically retained (and there was no reason it should have been retained). Further, IP had usable well chart data for only four of the six years since HSF was expanded. This meant it would have been necessary to extrapolate that the injection volumes calculated for the limited number of days for which complete I/W well chart data was available accurately represented the injection volumes for the entire six-year period.

In 2003-2004, IP did use the available I/W well chart data, along with other estimation techniques, to estimate the amount of the inventory depletion that had occurred at HSF due to the main plant injection metering error. However, in IP's 2004 gas rate case, Docket 04-0476, the same Staff witness who testified in this case that IP should have used the I/W well chart data in 1999 to determine the amount of the HSF injection metering error, testified that the I/W well data was not sufficiently complete, accurate or reliable to be used to determine the amount of the inventory depletion that had occurred at HSF. Following is the Staff testimony on this point from Docket 04-0476, which was not introduced into the record in Dockets 03-0699 or 04-0677, but was placed in the record in the instant docket (AmerenIP Ex. 3.0, pp. 29-30):

Q. Why does IP's calculation regarding its estimate for the overstatement of injections into the Hillsboro storage field concern you?

A. I have several concerns. First, regarding the use of the well charts to obtain an estimate, the [Hillsboro Study] Report, page 2, indicates that a 5-day "snapshot" was used as a proxy for the usage for the whole month. In essence, IP took one-sixth or 16.7% of that month's data to extrapolate out that month's usage at each individual meter. *Using only 16.7% of the data to reach a conclusion is not the most accurate means of making an estimate.*

Second, the well charts are records from attached orifice meters located at the individual well locations. As noted in the Peterson Study, page 17, *those orifice meters are not set up according to American Gas Association (AGA) guidelines* for orifice meters. Utilities follow AGA guidelines when they need to have high meter accuracies, such as when the results are used to determine a customer's bills. *Since the meters were not set according to AGA guidelines, the resulting readings are not reliable enough to be used to accurately calculate the injections into the Hillsboro storage field.* In fact, the Peterson Study, page 21, notes the volumes computed from the well metering should be considered estimates only. Further, the Company's response to

Staff data request ENG 1.38 indicated that the orifice meters were installed to provide methanol injection control based on differential pressure and to provide an indication of relative flow between various wells, but were not intended for inventory measurement. Therefore, *the correction values that IP calculated from the well charts are, at best, inexact estimates that should not form the basis for any adjustment.*

Third, aside from *questionable correlation factors resulting from the inaccuracies of the well charts*, the data derived from the well charts was *incomplete*. IP failed to even attempt to calculate the correction factors for two of the six years (1996 and 1997) in the 1994 through 1999 period. Even considering the limited value of the well chart correction factors it is telling that *the correction factors calculated, with one exception, are not anywhere near the number IP ultimately determined was the appropriate correction value.* (Emphasis added.)

In its Docket 04-0476 Order, the Commission summarized the Staff testimony on this point as follows: “According to Staff, *the methods used by IP to calculate its Hillsboro storage field measurement errors*, the resulting actual gas inventory, the recoverable base gas withdrawal, and *the injection amounts are simply too speculative and not sufficiently accurate* to provide a reasonable basis for an adjustment to and recalculation of the value of recoverable base gas amounts” (emphasis added). The Commission accepted Staff’s arguments concerning the lack of accuracy and reliability of IP’s estimate of the amount of the inventory depletion that had occurred at HSF due to the injection meter over-registration.<sup>14</sup>

Even in *this* case, the Staff witness stated that he has *never* accepted IP’s estimate of the amount of the HSF injection metering error and inventory depletion as accurate. (Staff Ex. 2.00, p. 14; Staff Ex. 4.00, p. 45.) Yet Staff continued to argue that IP was imprudent for failing, in 1999, to use the inaccurate, unreliable and incomplete I/W well data to determine the amount of the main plant injection meter over-registration error.

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<sup>14</sup> Order in Docket 04-0476 (May 17, 2005) at pp. 13 (emphasis added) and 27. In IP’s appeal of that Order, the Appellate Court, relying on the Staff testimony, affirmed the Commission’s conclusion. *Illinois Power Co. v. ICC*, No. 3-05-0479 (3d Dist. 2006), slip op. p. 14.

Given that, as the record in this docket shows, in Docket 04-0476 Staff testified and the Commission agreed that the I/W well chart data was not sufficiently accurate, reliable or complete to use to estimate of the amount of the HSF injection meter over-registration and inventory depletion, it would be arbitrary, and fundamentally inconsistent, to conclude in this docket that IP was *imprudent* for failing, in 1999, to use the I/W well data to determine the amount of the injection meter over-registration.

The other component of the PO's conclusion that "IP failed to conduct a thorough study of the injection error at the time it was identified" is Staff's contention that the estimate of the main plant injection error IP did develop in 1999 was based on unsupportable assumptions. However, in 1999 IP estimated the amount of the injection meter over-registration directly, using the best information available at the time. Peterson Engineering, the consulting firm that discovered the injection meter over-registration, also determined that the over-registration varied based on the level of operation ("loading") of the nearby compressors, and calculated the percent meter inaccuracy at different levels of compressor loadings. IP relied on the judgment and experience of the HSF operators to estimate the percentages of operating hours the compressors were at the different loading levels, and applied the calculated metering error percentages at different compressor loading levels provided by Peterson to estimate the cumulative amount of the metering error. The calculated result – a cumulative over-recording of injections of 5.4% – was not a sufficiently large number to indicate that inventory depletion due to the metering error was the cause of the deliverability issue. Although IP later determined this estimate was too low, it was reasonable based on the directly applicable information available to IP in 1999-2000. (AmerenIP Ex. 3.0, pp. 12-13, 22-23; AmerenIP Ex. 3.2, pp. 9-10.)

Moreover, in 2003, when IP did use the available I/W well chart data from 1994-1995 and 1997-1998 to attempt to estimate the amount of the main plant injection metering error, IP calculated meter error values of 22.1%, 7.9%, 12.7% and 8.9% for those four years, averaging about 12.5%. While this figure is higher than the estimate of the injection meter error IP had made in 2000 (5.4%), it is much lower than the final value of 22% that IP developed in 2003, using computer modeling and other methods, for the metering error and inventory depletion. Further, because the I/W well chart data was incomplete and not believed to be accurate, IP would have had no way to determine if the indicated 12.5% discrepancy was due to inaccuracy in volumes recorded on the main plant injection meters, inaccuracies in the I/W well chart data or the injection volumes calculated from that data, or errors in both sources. In short, if IP had done the analysis in 1999 or 2000, using the I/W well data, that Staff contended IP should have done, the results would have been indeterminate, would not have identified the full amount of the metering error and therefore would not have fully explained the cause of the HSF deliverability issues. Continuing investigation of potential reservoir leaks or structural problems would have been necessary before commencing to reinject replacement inventory into HSF. (AmerenIP Ex. 3.0, pp. 12, 25-27; AmerenIP Ex. 3.2, pp. 12-14.)

The evidence concerning this prong of Staff's HSF-specific arguments is discussed in greater detail in IP's Initial Brief, §III.C.1, pp. 27-35, and IP's Reply Brief, §II.B.1, pp. 10-16.

## **2. Maintenance of the HSF Withdrawal Meters**

Staff's second HSF-specific argument, which the PO adopts ("IP . . . failed to conduct inspections to assure that the orifice meters were working properly"), was that IP failed to place a sufficient priority on accurate measurements for *withdrawals* from HSF after its expansion in 1993, resulting in the failure to find, until 1999, that a measurement problem in one of the four

plant *withdrawal* meters had caused an overstatement of *withdrawals* from HSF. However, the record showed that, for a number of reasons, this argument did not support Staff's claim that IP was imprudent in not discovering the cause of the HSF deliverability issues in 2000:

- The maintenance and inspection practices Staff claimed IP should have followed for the HSF withdrawal meters were taken from a Commission regulation and industry standards and guidelines that by their terms are *not applicable* to the operation of non-custody-transfer storage field meters, such as the HSF withdrawal meters.
- IP followed maintenance and inspection practices for the withdrawal meters that were reasonable and adequate for the use to which the meters were put.
- The withdrawal meter on which the measurement problem was found had only operated a cumulative total of about 6-1/2 months from 1994 to 1999; further, its location in the gas stream in relation to other plant facilities was such that it had less exposure to deposits of debris and other contaminants in the gas stream that might impact accuracy.
- Most importantly, the HSF deliverability issue was not caused by the *withdrawal* meter error, but by a metering error in the main plant injection meters. Even if IP had discovered the problem with the *withdrawal* meter sooner than 1999, this would not have impacted its original underestimation of the main plant *injection* meter error, which ultimately proved to be the cause of the HSF deliverability issue.

The evidence concerning this prong of Staff's HSF-specific arguments is discussed in greater detail in IP's Initial Brief, §III.C.2, pp. 35-43, and IP's Reply Brief, §II.B.2, pp. 16-21, as well as in the testimony at AmerenIP Ex. 3.0, pp. 33-41 and AmerenIP Ex. 3.2, pp. 24-28.

### **3. Declining Gas Withdrawal Volumes**

Staff's third HSF-specific argument was that IP failed to recognize the significance of the fact that in the 1999-2000 and 2000-2001 winters, it withdrew less gas from HSF than was withdrawn prior to the 1993 expansion. Staff asserted this should have caused IP to realize that HSF had an "inventory problem."<sup>15</sup> The record shows, however, that Staff misconstrued the

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<sup>15</sup> Although this point was the third prong of Staff's HSF-specific argument, the PO does not appear to have relied on it. The PO's conclusion is that "IP failed to conduct a thorough study of the injection error at the time it was identified and also failed to conduct inspections to assure that the orifice meters were working properly." (PO, p. 32.) The two points cited by the PO were the first two prongs of Staff's HSF-specific argument, discussed above.

significance of this information. Although IP was unable in those years to *withdraw* as much gas as it had prior to the expansion, this did not tell IP what *volume* of gas inventory was in the storage field, or whether injected gas was migrating to areas that were not accessible by the withdrawal wells. In 2000 and 2001, IP was continuing to investigate, and had not ruled out, possible leaks, gas migration or other structural problems that could be causing the inability to withdraw more gas. Based on the information available to IP at the time, and the potential causes of the deliverability decline it was investigating, it was quite possible that the storage field contained sufficient *volume* of gas inventory, but that this gas could not be *accessed and withdrawn* due to structural problems such as leakage or migration from the main underground reservoir to areas where it could not be accessed by the withdrawal wells, or due to obstructions in the vicinity of withdrawal wells.

The evidence concerning this prong of Staff's HSF-specific arguments is discussed in greater detail in IP's Initial Brief, §III.C.3, pp. 43-45, and IP's Reply Brief, §II.B.3, pp. 21-22, as well as in the testimony at AmerenIP Ex. 3.0, pp. 41-43, AmerenIP Ex. 3.2, pp. 14-15, and AmerenIP Ex. 5.1, pp. 3-5.

#### **4. Staff's Failure to Take Into the Account the Need to Continue to Investigate Possible Leaks or Other Structural Problems with the HSF Reservoir**

In addition to the individual flaws, discussed above, in Staff's three HSF-specific arguments, Staff's contention that IP should have started to reinject replacement gas inventory in 2000 was misplaced because at that time, IP was continuing to investigate, and had not eliminated the possibility of, plausible reservoir or structural causes for the HSF deliverability decline. Even had AmerenIP recognized the significance of the three specific factors Staff cited, it would have been *imprudent* to begin reinjecting substantial amounts of replacement inventory

in 2000 (or 2001 or 2002) before IP had fully investigated and eliminated (or confirmed and addressed) the plausible structural and reservoir causes of the HSF deliverability decline. Based on the information available to IP in 2000, these potential reservoir or structural issues could have resulted in any replacement gas inventory that IP injected into the storage field also becoming inaccessible and lost. Staff's arguments ignore this, even though the Staff witness testified that "I agree that had the Company found the inventory shortfall problem in a timely fashion the Company would have still had to consider potential problems with the reservoir or other structural problems." (Staff Ex. 4.00, p. 11.) The evidence on this point is discussed in detail in IP's Initial Brief, §III.C.4, pp. 45-54, as well as in the testimony at AmerenIP Ex. 3.2, pp. 2-9, AmerenIP Ex. 5.0, pp. 7-14, and AmerenIP Ex. 5.1, pp. 1-3.

As an alternative, Staff contended that even if it was reasonable for IP not to begin significant reinjections in 2000, it should have done so in 2001 after IP drilled a new well (Furness No. 1) at the location where a substructure to which gas was migrating was believed to exist, but failed to locate the substructure. This Staff argument, however, also misapplied the prudence standard, because in 2001 and 2002 IP was continuing to investigate other plausible reservoir or structural problems that could have been causing the deliverability decline. It was not until 2003 that IP was able, as a result of its investigations, to rule out reservoir or structural causes and therefore commence significant reinjections of replacement inventory, without risking that the reinjected gas would be lost.<sup>16</sup> The evidence on this point is discussed in detail in IP's Initial Brief, §III.C.4, pp. 50-53, and in the testimony at AmerenIP Ex. 3.0, pp. 31-33; AmerenIP Ex. 3.2, pp. 15-16; AmerenIP Ex. 5.0, pp. 14-18; and AmerenIP Ex. 5.1, p. 5.

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<sup>16</sup> As noted earlier, if the Commission were to conclude that IP prudently should have started to inject replacement inventory in 2002 (rather than 2000 or 2003), there would be \$39,385 of imprudent gas costs attributable to 2005. (IP Init. Br., p. 1 note 1.)

Thus, Staff's HSF-specific arguments were not based on proper application of the prudence standard, because Staff failed to take into account all of (and only) the information and circumstances available to and confronting IP during the relevant time period. Further, Staff's contentions essentially amounted to a difference of opinion between the Staff witness (who analyzed the matter several years after the fact) and the IP employees responsible at the time of the events in question for investigating and determining the cause of the HSF deliverability issue, as to what actions should be (or should have been) taken. As the Commission and the courts have long recognized:

Prudence is that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made. In determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. Hindsight review is impermissible.

Imprudence cannot be sustained by substituting one's judgment for that of another. The prudence standard recognizes that reasonable persons can have honest differences of opinion without the one or the other necessarily being "imprudent."<sup>17</sup>

Further, the Commission must evaluate prudence by considering all of the information available to, and the circumstances confronting, the utility at the time of the decisions and actions in question – not just a subset of the information that is marshaled to support an "imprudence" argument. (*See ICC v. Illinois Power Co.*, Docket 01-0701 (Feb. 19, 2004), p. 23.)

**C. Staff's "Overall Storage Concerns" Were Unfounded and Did Not Support Its Contention that IP Was Imprudent in Not Determining the Cause of the HSF Deliverability Issue and Beginning to Reinject Replacement Inventory in 2000**

In addition to his three HSF-specific arguments, the Staff witness also raised several "overall storage concerns." These "overall storage concerns" included the reduction in peak day

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<sup>17</sup> *ICC v. Commonwealth Edison Co.*, Docket 84-0395 (Oct. 7, 1987), p. 17; *see also ICC v. Illinois Power Co.*, Docket 01-0701 (Feb. 19, 2004), p. 22; *Illinois Power Co. v. ICC*, 245 Ill.App.3d 367, 371 (3d Dist. 1993); *Illinois Power Co. v. ICC*, 339 Ill.App.3d 425, 428, 435 (5th Dist. 2003).

capacity at IP's Shanghai storage field for the 2001-2002 winter, an event with respect to which the Commission, in IP's 2001 PGA case (Docket 01-0701) rejected Staff's recommendation for an imprudence disallowance; a reduction in the number of supervisors at IP's storage fields; a lower level of storage field capital expenditures in 2002-2004; and a purported inability (based on two "examples") to conduct adequate root cause analysis and identify problems with its storage fields. The record in this docket, however, shows that each of Staff's "overall storage concerns" was unfounded, and that there was no causal connection between the "overall storage concerns" and the HSF deliverability issue or the speed and aggressiveness with which IP investigated, identified and remediated it.<sup>18</sup> Further, the PO, in its conclusion, states only that "The Commission also finds that the overall storage concerns identified by Staff indicate that IP's actions or lack thereof contributed to the problems experienced at the Hillsboro field," with no further explanation of or support for this conclusory statement (PO, pp. 31-32) – which provides no confidence that the evidence on the "overall storage concerns" has actually been considered and analyzed in reaching the PO's overall conclusion.

Several of the "overall storage concerns" warrant additional discussion here, particularly in light of the additional evidence presented on several of these points in this docket that was not presented in Docket 03-0699 or Docket 04-0677.<sup>19</sup>

### **1. Shanghai Storage Field**

Staff argued IP was imprudent in not determining until 2003 that the cause of the HSF

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<sup>18</sup> The evidence concerning the "overall storage concerns" is discussed in detail in IP's Initial and Reply Briefs as follows: (1) Shanghai Storage Field – IP Init. Br., §III.D.1, pp. 54-57, and IP Reply Br., §II.C.1, pp. 29-31. (2) "Manpower" concern – IP Init. Br., §III.D.2, pp. 57-64, and IP Reply Br., §II.C.2, pp. 32-35. (3) "Capital expenditures" concern – IP Init. Br., §III.D.3, pp. 64-68, and IP Reply Br., §II.C.3, pp. 35-38. (4) "Identification of problems" concern – IP Init. Br., §III.D.4, pp. 68-77, and IP Reply Br., §II.C.4, pp. 38-43.

<sup>19</sup> The new evidence is discussed in detail in the IP 7/8/10 Response, pp. 25-38 and 40-45.

deliverability issue was the main plant injection meter over-registration because IP had experienced a deliverability problem at its Shanghai Storage Field that resulted in a reduction in the peak day capacity of Shanghai for the 2001-2002 winter season. However, in this docket, IP presented additional evidence, not presented in Dockets 03-0699 or 04-0677, to show that the deliverability problem that had been experienced (and corrected) at Shanghai was different from the cause of the HSF deliverability issue:

- Q. [The Staff witness's] testimony links the reduction in the Hillsboro peak day deliverability rating and the reduction in the Shanghai peak day deliverability rating. Were the causes of the peak day deliverability capacity reduction at the two storage fields the same or similar?
- A. No. Illinois Power reduced the peak day deliverability rating of the Shanghai Field prior to the start of the 2001-2002 winter season specifically due to concerns that the then-current peak day deliverability could not be achieved, **due to deliverability concerns with certain withdrawal wells resulting from sanding and from scaling of perforations at certain wells.** Based on work that was done on the wells in late 2001, IP was able to restore the peak day deliverability rating of the Shanghai Field to its original value prior to the 2002-2003 withdrawal season. With respect to Hillsboro, [IP witnesses] Mr. Hood and Mr. Kemppainen discuss in detail the cause and investigation of the Hillsboro peak day capacity derating, which occurred prior to the 1999-2000 winter season and was restored prior to the 2003-2004 winter season. In summary, **the cause of the Hillsboro deliverability decline was depletion of the inventory in the Field due to over-registration of injected gas volumes by the Hillsboro main plant injection meters, which caused IP to believe there was more gas in the Field than was actually the case.** Further, at Shanghai, only peak day deliverability was reduced, not overall (total annual) deliverability. In contrast, at Hillsboro, total deliverability was reduced over time which led to the reduction in peak day deliverability. (AmerenIP Ex. 2.3, pp. 12-13; emphasis supplied.)

IP also provided new testimony in this docket specifically about the causes of the metering errors that had occurred at Shanghai (which was not the cause of the one-season peak day deliverability reduction) and at HSF, to show that the metering errors occurring at the two storage fields had completely different causes:

- Q. At lines 623 to 632 of his rebuttal testimony, [the Staff witness] responds to the description in your rebuttal testimony concerning the causes of the reduction in the peak day deliverability rate of the Shanghai Storage Field, and the fact that the reduction was due to specific well issues at Shanghai, by stating that there was also an inventory shortfall at Shanghai due to a metering error. Do you have any response to [Staff's] rebuttal testimony on this point?
- A. Yes. First, I would note that [Staff] **does not disagree with my testimony that well sanding problems were a cause of the reduction of the peak day rating at Shanghai but were not a cause of the deliverability issue at Hillsboro.** Further, regarding the Shanghai metering error, as the Company stated in its testimony in Docket No. 01-0701, **the metering error at Shanghai was not the cause of the temporary reduction in the peak day deliverability of the Shanghai Storage Field,** and in fact the volume of gas associated with the metering error at Shanghai was an amount that would not have affected the deliverability of the Shanghai Storage Field. Additionally, **the cause of the injection metering error at Shanghai was completely different from the cause of the injection metering error at Hillsboro.** At Shanghai, although there was nothing physically wrong with the meter, **the error occurred because the incorrect K-factor constant was programmed for the gear ratio of the meter.** This incorrect value was discovered during an inspection of the meter and was promptly corrected. Further, because the date on which the incorrect K-factor constant had been programmed was known, and the amount of the measurement error was a factor of the difference between the correct and incorrect gear ratio K-factors, IP was able to calculate the exact volume of the Shanghai meter error. In contrast, at Hillsboro, as Mr. Hood and Mr. Kempainen have discussed at length in their testimony, the injection metering error was caused by operation of the plant compressors at certain loadings causing the turbine meters to overspin. Further, as Mr. Hood and Mr. Kempainen have discussed, **at Hillsboro unlike Shanghai there was no easy way to calculate the amount of the injection metering error.** (AmerenIP Ex. 2.12, pp. 5-6, emphasis supplied.)

The Staff witness ultimately conceded that “There are factual differences between” the adjustment at Shanghai and the adjustment at HSF and that “[t]he context for the reductions of peak day capacity ratings of the two storage fields was different.” (Staff Ex. 4.00, p. 29.)

Further, the record in this docket also shows that the reduction of capacity of a storage field is a not uncommon event; rather, deliverability declines are the most common problem in the gas storage industry. According to data published by the U.S. Department of Energy, based on more than 350 U.S. storage reservoirs, most gas storage operators experience a loss in

deliverability over time. (AmerenIP Ex. 5.0, p. 19.) Finally, in Docket 01-0701, IP's PGA case for 2001, the Commission extensively reviewed the facts relating to the one-season reduction in Shanghai's peak capacity and IP's actions at Shanghai, and specifically found that IP had acted reasonably and prudently and was not imprudent in connection with the Shanghai capacity reduction. (*ICC v. Illinois Power Co.*, Docket 01-0701 (Feb. 19, 2004), pp. 7-11, 16-19, 22-25.) In light of this prior, specific Commission finding, there is no basis for using the Shanghai capacity reduction in the 2001-2002 winter as grounds for an imprudence finding against IP for failing to determine in 2000 that an injection metering error was the cause of the HSF deliverability decline and to begin reinjecting replacement inventory at that time.<sup>20</sup>

## **2. Storage Field Manpower**

In this docket, IP presented considerably more evidence than it presented in Dockets 03-0699 and 04-0677 concerning the amount of supervisory and technical personnel it had assigned to its gas storage field operations over the period from the HSF expansion, in 1993, through 2004. This information is relevant to prudence issue because one of Staff's arguments has been that IP did not determine the cause of the HSF deliverability issue sooner because (according to Staff) IP did not have sufficient supervisory personnel in its storage field operations. In this docket, IP conducted a thorough review of its records concerning the positions and responsibilities of supervisory and technical personnel in its gas storage field operations over the period in question, and presented the results of this review in testimony. This detailed review and analysis of the organizational records showed that IP had sufficient management, technical

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<sup>20</sup> The Shanghai Storage Field issue is the only one of Staff's "overall storage concerns" that was mentioned in the Appellate Court decision on the Docket 03-0699/04-0677 appeal. None of the other "overall storage concerns" was even mentioned in the Appellate Court decision, let alone cited as a basis for affirming the Commission's Orders. As shown above, there is substantial new and additional evidence on the Shanghai issue in the record of Docket 05-0743 that was not in the records of Dockets 03-0699 or 04-0677.

and supervisory personnel involved in its storage field operations throughout the time period involved in this case, and disproved Staff's assertion that IP had significantly reduced the number of personnel whose responsibility was the gas storage fields. (AmerenIP Ex. 2.3, pp. 15-19; AmerenIP Ex. 2.12, pp. 8-9; AmerenIP Ex. 3.0, pp. 44-45, 55.) Among other things, the evidence on this issue showed:

- In 1991, IP had a total of 16 storage field operators and three supervisors; as of January 2003, IP had 16 operators and one supervisor, or only two less storage field employees than in 1991.
- The operators have more than 240 total years of gas storage experience, and have continued to increase their expertise through various methods of education and training.
- Staff's assertion that a storage field supervisor had been given additional responsibilities concerning the gas control/dispatch function (thereby stretching his attention) was shown to be incorrect. At no time during the period from the early 1990s through 2005 did the storage field supervisor having direct responsibility for daily operations at the storage fields also have responsibility to supervise the gas control/dispatch function.
- In addition to the employees located at its storage fields, throughout the period IP has also had a team leader or manager position responsible for supervision of all its storage fields. Overall, in 1991 IP had three employees whose major job responsibility was day-to-day supervision of the storage fields, and in 2004 IP still had three people with supervisory responsibility over the storage fields.
- In addition to the personnel at the storage fields or with direct supervisory responsibilities over the storage fields, throughout the period IP had engineering and administrative personnel on its headquarters staff whose responsibilities included the storage fields. In 1993, IP had four technical support staff employees with responsibilities for supporting the storage fields and maintained that level through approximately the end of 2001. Two of these positions were filled by the same persons throughout the period, providing continuity of oversight.
- IP also used outside consultants and contractors for special projects and studies at the storage fields. Headquarters engineering personnel and outside consultants and contractors were used to investigate and analyze problems and other occurrences at the storage fields in order to minimize distracting the personnel at the storage fields from performance of their day-to-day responsibilities.
- From 1995 to 2001, IP retired a number of facilities for which the storage field personnel were responsible, including one storage field and the associated regulator station, four propane plants, and two compressors at sites other than the storage fields. These retirements reduced the workload of the storage field personnel. IP also

reduced the workload of the supervisors by making them no longer responsible for training. (AmerenIP Ex. 2.3, pp. 21-23.)

- Finally, over the period from 1993-2004, IP made numerous capital improvements at its storage fields including the installation of advanced automation and control technologies. These projects included improving the automation and remote control features of the control systems at the storage fields, so that by 2004, all the fields had updated control systems that improved the ability to monitor the operation of the fields, both on-site and remotely from IP's central gas dispatch center. These capital improvements have reduced the amount of time that personnel need to spend on-site at the storage fields and enable the operation of the fields to be monitored, and trouble-shooting of problems to be conducted, from remote locations. (AmerenIP Ex. 2.3, pp. 20-21, 26.)

Without citing any specific facts to support his contention, the Staff witness asserted that “the events suggest . . . IP’s reduction in oversight has caused it to operate its storage fields in a manner that is not safe, reliable and efficient.” (Staff Ex. 2.00, p. 49.) Not only did IP’s extensive evidence completely refute Staff’s contention,<sup>21</sup> but the Staff witness failed to show any causal connection between the purported reduction in storage field supervisory and technical personnel and the HSF delivery issue or the speed and diligence at which IP investigated, identified and remediated the HSF deliverability issue. To the contrary, witnesses who were directly involved in investigating and determining the cause of the HSF deliverability issue affirmatively testified that IP “diligently investigated the source of the declining performance at the Hillsboro Field over a number of years until it was identified and corrected. These efforts were not hampered by a lack of supervisory resources.” (AmerenIP Ex. 3.0, pp. 43-44.)

### **3. Capital Expenditures**

Staff expressed concern that IP’s capital expenditures were lower in 2002-2004 than they had been in 2000 and 2001, which Staff asserted contributed negatively to IP’s ability to manage

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<sup>21</sup> The record shows IP’s storage fields have an excellent safety record, as evidenced by, among other sources, the results of the inspections conducted by the Commission’s Office of Pipeline Safety. (AmerenIP Ex. 2.3, p. 20.)

its storage operations. (Staff Ex. 2.00, pp. 50-52.) However:

- Staff did not identify any capital projects that IP should have undertaken, but did not, that would have enabled IP to determine the cause of the HSF deliverability issue sooner than it did (or, more generally, to enable IP to better manage its storage fields).
- Further, the period 2002-2004 is after the time (2000) that Staff contended IP should have discovered that the cause of the HSF deliverability issue was the main plant injection metering error.
- In fact, since IP determined the cause of the HSF deliverability issue and began reinjecting inventory in 2003, its capital expenditures in 2003-2004 are irrelevant to the prudence of its actions in the period leading up to resolution of the issue in 2003.
- With respect to that preceding period, by virtue of the comparison Staff focused on, the capital expenditures during the period 1997-2001, when IP was investigating the cause of the HSF deliverability issue, were at levels Staff apparently found to be acceptable.
- Additionally, although Staff has raised this same general concern in several dockets, Staff has never conducted any discovery into the details of IP's capital budgeting and capital projects decisions to attempt to determine if IP has in fact avoided or deferred useful capital projects, including projects that could have led to earlier discovery of the cause of the HSF deliverability issue. (AmerenIP Ex. 2.12, pp. 12-13; IP Reply Br., p. 36.)

Indeed, this “concern” seems contrary to Staff’s primary HSF-specific argument. Staff contended that IP should have started reinjecting replacement inventory into HSF in 2000, but IP’s position was that it would have been imprudent to do so because it was still investigating possible leaks or other structural problems with the reservoir, including by drilling the Furness No. 1 Well – a major capital project – to verify (or reject) the apparent existence of an underground substructure to the northeast of HSF to which, it appeared, 3.5 Bcf of gas had migrated. Yet Staff contends IP did not spend enough on capital projects at the storage fields.

In fact, as shown on AmerenIP Exhibits 2.6, 2.7 and 2.8, IP carried out numerous capital projects, as well as other studies and analyses, at its storage fields over the period from 1995 through 2004, including (as noted in the preceding section of this Brief) replacing automation and control systems at all the fields. Further, Staff failed to take account of IP’s operation and

maintenance (“O&M”) expenditures at its storage fields, which increased steadily over the 1995-2004 period. IP’s storage field O&M expenditures were 44% higher in 2004 than in 1995. Maintaining and increasing O&M expenditures is important to operating the storage fields safely, reliably and efficiently. (AmerenIP Ex. 2.3, pp. 27-28; AmerenIP Ex. 2.9.)

#### **4. December 2000 Hillsboro Incident**

Staff’s final “overall storage concern” was based in large part on a December 2000 incident at HSF in which a produced water tank became overpressurized and was launched from its foundation. Staff contended IP failed to conduct a thorough analysis of the root cause of the occurrence, even though the record shows:

- Within two days following the incident, IP hired a qualified outside consulting and forensic engineering firm, whose qualifications Staff did not question, to conduct an investigation and submit a report, which the firm did less than two months after the incident. (AmerenIP Ex. 3.0, pp. 46-47; AmerenIP Ex. 3.2, p. 31.)
- The engineering firm’s report identified a specific root cause of the occurrence. (AmerenIP Ex. 3.0, p. 47.)
- Based on the results of its own investigation and the engineering firm’s report, IP implemented a number of corrective actions for purpose of preventing recurrence of the incident. (AmerenIP Ex. 3.0, pp. 51-53.)
- The Commission’s Office of Pipeline Safety (“OPS”) conducted a thorough, independent investigation of the incident and issued a report (AmerenIP Ex. 3.1), but did not find any fault with the quality or completeness of the investigations conducted by IP and the engineering firm, or identify any other causes of the occurrence not identified by IP and the engineering firm. (AmerenIP Ex. 3.0, pp. 48-49.)

Most importantly, neither the Staff witness, nor the OPS, nor any other Staff member, has ever criticized the sufficiency or completeness of the corrective actions IP implemented in response to the December 2000 incident. (AmerenIP Ex. 3.0, pp. 51-52; AmerenIP Ex. 3.2, pp. 30-31.) In this docket, the specific corrective actions were described in detail and it was shown that they would prevent a recurrence of what the Staff witness believed to be the root cause of the December 2000 incident. (AmerenIP Ex. 3.0, pp. 52-53; AmerenIP Ex. 3.2, pp. 29-32.)

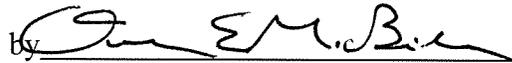
Thus, although the Staff witness criticized the sufficiency of IP's root cause analysis of the December 2000 incident, the purpose of a root cause analysis is to identify corrective and preventative actions that should be taken to prevent the incident from occurring again. IP implemented numerous corrective and preventative actions following the December 2000 incident, based on its investigation, and the sufficiency and completeness of those actions has not been questioned. (AmerenIP Ex. 3.0, p. 54.)

#### **IV. CONCLUSION**

For the reasons set forth herein, the Commission should reject the proposed conclusions in the Proposed Order, and should find that IP acted prudently in its investigation, identification and remediation of the deliverability issue at HSF, and IP incurred no imprudent gas costs in 2005. The Commission should adopt the replacement language for the PO in Attachment 1.

Respectfully submitted,

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d/b/a AMERENIP

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## CERTIFICATE OF SERVICE

The undersigned attorney hereby certifies that he caused copies of the AmerenIP's Brief on Exceptions to the Administrative Law Judge's Proposed Order in Docket 05-0743 to be served on each of the persons on the attached Service List by e-mail on May 9, 2011.

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**STATE OF ILLINOIS**

**ILLINOIS COMMERCE COMMISSION**

<b>Illinois Commerce Commission</b>	:	
<b>On Its Own Motion</b>	:	
<b>-vs-</b>	:	
<b>Illinois Power Company</b>	:	
<b>d/b/a AmerenIP</b>	:	<b>05-0743</b>
	:	
<b>Reconciliation of revenues</b>	:	
<b>collected under gas adjustment</b>	:	
<b>charges with actual costs</b>	:	
<b>prudently incurred.</b>	:	

**AMERENIP'S PROPOSED REVISIONS TO**  
**PROPOSED ORDER**

DATED: April 18, 2011

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**STATE OF ILLINOIS**

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**Illinois Commerce Commission** :  
**On Its Own Motion** :  
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**d/b/a AmerenIP** : **05-0743**  
:  
**Reconciliation of revenues** :  
**collected under gas adjustment** :  
**charges with actual costs** :  
**prudently incurred.** :

**PROPOSED ORDER**

By the Commission:

**I. PROCEDURAL HISTORY**

The Illinois Commerce Commission (“Commission”) entered an Order commencing the instant purchased gas adjustment (“PGA”) reconciliation proceeding, in accordance with the requirements of Section 9-220 of the Public Utilities Act (“Act”), 220 ILCS 5/1-101 et seq. The Order directed Illinois Power Company d/b/a AmerenIP (“IP”, “AmerenIP” or “Company”) to present evidence at a public hearing to “show the reconciliation of PGA revenues with the actual cost of such gas supplies obtained through purchases demonstrated by the [utility] to be prudent, and the measures taken to insulate the PGA from price volatility . . .” for the 12 months ended December 31, 2005 (the “reconciliation period” or “reconciliation year”).

Pursuant to due notice, hearings were held in this matter before a duly authorized Administrative Law Judge of the Commission at its offices in Springfield, Illinois. Appearances were entered by counsel for IP, the Staff of the Commission (“Staff”), and Dynegy Inc., whose Petition for Leave to Intervene was granted. Evidence was presented by IP and Staff, and at the conclusion of the hearings, the record was marked “Heard and Taken.”

IP and Staff each filed an initial brief (“IB”) and reply brief (“RB”). Additional filings were made on July 8, 2010, by IP (“IP 7/8/10 response”) and Staff, and on July 29, 2010 by Staff (“Staff 7/29/10 reply”) and IP.

**II. APPLICABLE AUTHORITY; PRUDENCY STANDARDS**

In accordance with Section 9-220 of the Act, the Commission may authorize an increase or decrease in rates and charges based upon changes in the cost of purchased gas through the application of a purchased gas adjustment clause. Section 9-220(a) requires the Commission to initiate annual public hearings “to determine

whether the clauses reflect actual costs of . . . gas . . . purchased to determine whether such purchases were prudent, and to reconcile any amounts collected with the actual cost of . . . gas . . . prudently purchased.”

For gas purchases, the provisions of Section 9-220 are implemented in 83 Ill. Adm. Code Part 525, “Uniform Purchased Gas Adjustment Clause.” Section 525.40 of Part 525 identifies gas costs which are recoverable through PGA. Adjustments to gas costs through the Adjustment Factor are addressed in Section 525.50. The gas charge formula is contained in Section 525.60. Annual reconciliation procedures are described in Section 525.70.

With regard to the prudence standard, the Appellate Court, in its decision affirming the Commission’s orders in Dockets 03-0699 and 04-0677, stated:

The Act clearly places upon those utilities taking advantage of a PGA clause the burden of proving the prudence of their gas purchases during the course of yearly reconciliation proceedings. 220 ILCS 5/9-220 (West 2002). Prudence is not defined within the Act. Commerce Commission proceedings and our court have defined prudence as “that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made.” *Illinois Commerce Comm’n v. Commonwealth Edison Co.*, Docket No. 84-0395, p. 17 (1987); *Illinois Power Co. v. Commerce Comm’n*, 339 Ill.App.3d 425, 428, 274 Ill.Dec. 1, 790 N.E.2d 377 (2003). In determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. *Illinois Power Co. v. Commerce Comm’n*, 245 Ill.App.3d 367, 184 Ill.Dec. 49, 612 N.E.2d 925 (1993). *Illinois Power Co. v. Illinois Commerce Com’n*, 382 Ill.App.3d 195, 887 N.E.2d 678 (2008).

In addition, the Commission and the courts have long recognized that “Imprudence cannot be sustained by substituting one’s judgment for that of another. The prudence standard recognizes that reasonable persons can have honest differences of opinion without one or the other necessarily being ‘imprudent.’” *Illinois Commerce Comm’n v. Commonwealth Edison Co.*, Docket 84-0395 (1985), p. 17; *Illinois Power Co. v. Commerce Comm’n*, 339 Ill.App.3d 425, 435 (2003).

Dockets 03-0699 and 04-0677, referenced above, were IP PGA reconciliation proceedings. In those dockets, as recommended by Staff, the Commission disallowed recovery of certain imprudently incurred costs related to the Hillsboro storage field (“HSF”), as discussed below.

### **III. PRIOR PGA ORDERS AFFIRMED BY APPELLATE COURT**

As noted above, Dockets 03-0699 and 04-0677 were PGA reconciliation proceedings for IP. In those dockets, as recommended by Staff, the Commission entered Orders disallowing recovery of certain imprudently incurred costs related to the

Hillsboro storage field. On page 37 of its Order in Docket 03-0699, the Commission found, in part, “AmerenIP acted imprudently in its response to the deliverability problems at the Hillsboro Storage Field and agrees with Staff that the Company should have begun replacement of the HSF inventory in 2000.” In Dockets 03-0699 and 04-0677, the amounts by which the cost of gas purchased in 2003 and 2004 exceeded what they would have been had IP begun replacing inventory in the 2000 injection season were found to be imprudently incurred.

Those Orders were appealed to, and affirmed by, the Appellate Court, Third District. As explained by the Appellate Court in its opinion:

In conclusion, [in Docket 03-0699] the Commission held that Illinois Power was imprudent in its operation of the Hillsboro field because it “(1) failed to conduct a thorough study of the injection error at the time it was identified, (2) failed to conduct any inspections to assure that the orifice meters were working properly, [and] (3) failed to begin returning the inventory to the field when the working gas volumes fell below the pre-expansion volume of 3.1 Bcf after the 1999-2000 winter season.” Consequently, the Commission ruled that \$6,870,109 of incurred costs related to Illinois Power’s remediation of the Hillsboro depleted gas levels could not be recovered from its customers through PGA tariffs.”  
382 Ill.App.3d 200.

The Court noted that “[t]he order in docket No. 04-0677 reiterated most of the findings contained in the 2003 case.” The Court added, “Based on the evidence adduced at the 2004 hearings and premised upon the Commission’s order entered in docket No. 03-0699, the Commission found that Illinois Power imprudently incurred \$2,979,849 in additional gas costs in 2004.” *Id.* at 200, 201.

In its analysis, the Court found, “Initially, the record indicates that Illinois Power failed to promptly pursue potential metering problems that were plainly stated and thoroughly analyzed in the 1999 Peterson report.” *Id.* at 202.

The Court observed that the evidence further indicated Illinois Power had accurate injection well data from 1994 which could have been integrated to determine an accurate estimate of the total amount of gas that had been injected into the field between 1994 and 1999. *Id.*

Next, the Court disagreed with Illinois Power’s assertion that it would have been imprudent to reinject the field with natural gas inventory in 2000 when working gas volumes fell below pre-expansion levels. The Court stated in part:

However, beginning in 1999, several reports and analyses indicated that the deliverability issue was caused by a field metering error rather than a structural one. Thus, the Staff claimed that once Illinois Power corrected the metering errors in 2000, testing those corrections during the 2000 injection season would have been appropriate. Lounsberry’s testimony showed that many, if not most, of Illinois Power’s concerns with reinjecting

the field too soon were unfounded based on a review of the 1999 Petersen report and the inconsistent 3-D seismic data on hand. Thus, the Commission position that Illinois Power should have attempted to reinject the field in 2000 to test the metering corrections is not unreasonable. By waiting three more years before even attempting to begin replacement efforts, Illinois Power unnecessarily depleted the base gas volumes of the reservoir and exponentially increased the cost of injection. Based on the entire record in both proceedings, a conclusion that Illinois Power was prudent is not clearly evident. *Id.* at 203.

The Court also found that the Commission properly considered similar deliverability issues occurring at an earlier period of at Illinois Power's Shanghai storage facility, where, like the Hillsboro field, there was a deliverability issue eventually associated with an injection metering problem.

In its conclusion, the Court affirmed the Commission finding that Illinois Power's decision to forego reinjecting the Hillsboro storage field until 2003 was imprudent. The Court held that "the Commission orders in case No. 03-699 and case No. 04-677 are therefore affirmed." *Id.* at 205.

#### **IV. HILLSBORO ADJUSTMENT IN CURRENT CASE**

In the instant docket, 05-0743, Staff again proposed a disallowance of gas costs related to the Hillsboro field, this time to reflect the cost impact of the inventory shortfall at Hillsboro on the 2005 reconciliation year. Staff states that its proposed adjustment and the position on which it is based are nearly identical to its positions, which were adopted by the Commission in the Company's 2003 PGA reconciliation in Docket No. 03-0699 and the 2004 PGA reconciliation in Docket No. 04-0677. (Staff IB at 43; Staff 7/29/10 reply at 3)

Staff is recommending that the Commission make the same findings it made in those earlier dockets. For the most part, where the evidence and arguments in the current docket are the same as in the prior two, they will not be repeated in detail in this order. Purported differences in the record in this proceeding as compared to the two earlier PGA dockets will be summarized in some detail in this order, usually with citations to the IP 7/8/10 response and the Staff 7/29/10 reply thereto.

Staff concluded in Docket 05-0743 that the Company imprudently incurred \$631,515 in additional gas costs in the reconciliation year as a result of the untimely reduction to the seasonal withdrawal capacity of its Hillsboro storage field. In Staff's view, the Company's actions were imprudent because it failed to identify a large inventory shortfall at the Hillsboro storage field and begin replacing it in a timely fashion. As a result of the inventory shortfall, after normalizing for weather, Staff asserted, as it did in the earlier PGA dockets, that the field did not fully cycle as it would have had there not been an inventory shortfall. That is, the Company operated the Hillsboro storage field in a manner that reduced the seasonal quantity of gas that could be withdrawn from the field as compared to what could have been withdrawn had it been fully functional.

In Staff's opinion, the Company should have identified and acted upon the reduced inventory and deliverability problems at the Hillsboro storage field several years prior to the reconciliation period involved in the instant proceeding. The gas the Company purchased to make up for this reduced seasonal withdrawal capacity was more expensive than the replacement gas, causing the Company to incur additional gas costs during the reconciliation period. (Staff brief at 3-4, 9; Staff Ex. 2.00 at 4)

IP opposes the adjustment proposed by Staff, as explained in detail in IP's testimony and briefs and in its response filed July 8, 2010. In IP's opinion, its actions at the Hillsboro field were appropriate. As summarized in its initial brief, IP believes the record demonstrates IP acted prudently and reasonably in its investigation, identification and remediation of the Hillsboro deliverability decline, and that Staff's characterizations of IP's actions as imprudent were made with the benefit of hindsight and constitute second-guessing and, at most, differences of opinion. IP argues that it prudently and aggressively pursued the causes of the decline in gas deliverability from Hillsboro that began in the mid-1990s. IP states that it applied significant attention and substantial internal and external resources to investigating the problem and identifying its causes. IP states that, based on the fact that the deliverability issue arose after the storage reservoir was significantly expanded in 1993, it prudently focused on possible reservoir or structural causes, including the possibility of an unidentified sub-structure to which gas was migrating, losses of gas through leaks or fractures in the reservoir structure or the caprock, unusual dispersion of injected gas rendering it inaccessible, and underground impediments in the area of withdrawal wells that limited the ability to access and withdraw gas. IP states that based on industry experience, such structural problems with the underground storage reservoir are a frequent cause of declining storage field capability. IP argues that it acted prudently and reasonably in refraining from beginning substantial reinjections of gas inventory until 2003, while it was still investigating possible structural causes, since until these possible causes were fully investigated and eliminated (or confirmed), the reinjected gas could have been lost as well. IP argues that it would have been imprudent for IP to begin reinjecting significant quantities of replacement gas inventory into HSF in 2000 or 2001. Further, IP asserts, the record shows each of the Staff witness' "overall storage concerns" is unfounded, and does not indicate any causal connection between any of the overall storage concerns and the HSF deliverability decline or the speed with which IP investigated, identified and remedied it. (IP-IB at 12-13). IP presented and discussed in detail the evidence supporting its position and responding to Staff's arguments at pages 12-77 of its initial brief and at pages 2-52 of its reply brief as well as at pages 14-47 of its July 8, 2010 response.

IP also argues that "if the Commission concludes that IP should have started to reinject gas inventory into Hillsboro during the 2002 injection season (rather than in 2000, 2001 or 2003), the resultant amount of the imprudently-incurred gas costs in the 2005 reconciliation year is \$39,385." (IP 7/8/10 response at 47, citing AmerenIP Ex. 2.3 at 4 and AmerenIP Ex. 2.5)

With regard to the earlier PGA dockets, IP, in its initial brief in Docket 05-0743, which was filed in April 2007, before the Commission issued its Order in Docket 04-

0677 and before the Appellate Court decision on the appeals of Dockets 03-0699 and 04-0677 was issued, at pages 77-78, states, in part:

The record in this case is similar to (but not identical to) the record in Docket 03-0699. AmerenIP respectfully disagrees with the findings and conclusions in the Order in Docket 03-0699 to the extent the Commission adopted Staff's arguments and found the Company acted imprudently with respect to Hillsboro. AmerenIP has appealed the Commission's findings and conclusions in Docket 03-0699 to the Illinois Appellate Court. (citation omitted) Briefing on the appeal is in progress. In its evidence in the instant docket and in this brief, AmerenIP has made the same or similar arguments in opposition to the Staff recommendation as it made in Docket 03-0699 and is making in the Appellate Court proceeding.

In its Response filed July 8, 2010, however, IP argues, "Key Points Relied on by the Appellate Court in Affirming the Commission's Orders in Dockets 03-0699 and 04-0677 Are Not Supported by the Record in Docket 05-0743" (IP 7/8/10 response at Section III); and that "There is Significant Additional and Different Evidence in the Record of Docket 05-0743 that is Material to the Principal Issues in the Case and Supports a Different Conclusion than that Reached in Dockets 03-0699 and 04-0677." (*Id.* at Section IV) IP discusses this additional and different evidence in detail at pages 14-47 of its 7/8/10 response. IP also argues, "In Reaching its Decision in this Docket, the Commission is Not Bound by its- Orders in Dockets 03-0699 and 04-0677 or the Appellate Court Decision in Those Cases, But Rather Must Reach its Decision Based on the Record in this Docket." IP argues in that part of its 7/8/10 response that the Commission is required by statute and caselaw to base its decision solely on the record compiled in the docket before it, and also discusses the limited and highly deferential standard of review underlying the Appellate Court's decision concerning the previous dockets. (*Id.* at Section II)

Staff asserts, in reply, that despite IP's attempts to distinguish the records, it remains clear that the adjustments proposed by Staff in the 2005 PGA case "are based upon the same actions by IP over the same general time period", and reflect the adverse effects of such actions or inactions on PGA costs in 2005. (Staff brief at 44; Staff 7/29/10 reply at 3)

## **A. Specific Hillsboro Actions**

Staff's review into the history of the Company's actions at the Hillsboro storage field indicated to Staff that the Company had several opportunities to detect the large inventory problem at the Hillsboro storage field, yet failed to do so. (Staff IB at 12) These issues were previously addressed by the parties and the Commission in Dockets 03-0699 and 04-0677.

### **1. Hillsboro Metering Review**

The first such action addressed by Staff was the Hillsboro metering review. In Staff's view, IP made a significant error when it originally reviewed the meter accuracy

problems that occurred at its Hillsboro storage field. In 2000, Staff states, the Company erroneously concluded that the measurement errors that occurred during injection and withdrawal basically offset each other. However, the injection error at the Hillsboro storage field was much more significant than the Company thought. (Staff IB at 13-17)

Staff states that in August 1999, IP hired Peterson Engineering to conduct an audit of its metering at the Hillsboro storage field. The firm issued a report (“Peterson Report”) in December 1999.

Had the Company conducted a thorough review after receiving the Peterson Report, Staff argues, the true magnitude of the injection measurement error would have been discovered by the 2000 injection season, and the Company could have started replacing the 5.8 Bcf of gas into the Hillsboro storage field during the 2000 injection season, and it would have completed the gas inventory replacement at the Hillsboro storage field prior to the instant reconciliation period. (Staff IB at 15; Staff Ex. 2.00 at 23-24, 27) In Staff’s view, having the full capacity of the field would have allowed IP to use more of the seasonal capacity of the Hillsboro storage field in the instant reconciliation period instead of relying upon more expensive gas sources. (Staff Ex. 2.0 at 23-24)

According to IP, Staff’s argument concerning the “Hillsboro Metering Review” does not demonstrate that the Company failed to act prudently. (IP RB at 10-16) Regarding the underestimation of the aggregate amount of over-registration that had occurred prior to discovery of the over-registration problem, IP argues, among other things, that the Company used the best information it had available, which was the experience and judgment of its operating personnel as to the percent of time the compressors had operated at different loading levels, coupled with the calculations provided by Peterson Engineering of the percentage over-registration at specified compressor loading levels. This produced an estimate of the cumulative over-registration that had occurred on the main plant meters which was too small to fully explain the deliverability problem being experienced. (*Id.* at 10-11; IP IB at 19-20)

Regarding the use of well chart data, IP states that when it had originally used the well chart data, prior to 1999, it did so under the assumption that the well chart data was inaccurate. At that time the Company compared the injection volume estimates derived from the I/W well charts to the injection volumes recorded on the main plant meters, which were assumed to be correct, and adjusted the injection volumes derived from the well charts to match the injection volumes recorded on the main plant injection meters. (IP RB at 12-13)

IP further asserts that even in 2003-2004, the Company did not estimate the amount of the inventory depletion solely using I/W well chart data. Rather, IP states, the Company used data from the well charts in conjunction with the reservoir simulation model it had developed of the Hillsboro Field to estimate the amount of the inventory depletion. IP asserts that development of the reservoir simulation model was an ongoing process and the model was not fully developed in 2000 as it was in 2003 when it was used to estimate the inventory depletion. Thus, IP argues, Staff’s suggestion that IP simply should have done in 2000 what it did in 2003 is flawed and is based on selective use of the facts. (IP RB at 13)

IP also argues that “it would not have been prudent to begin reinjecting significant amounts of replacement gas inventory before the Company had determined the inventory shortfall was not due to reservoir or structural problems that could cause the reinjected gas to be lost as well.” IP states that it was obvious that there was an “inventory shortfall” at Hillsboro but the issue was determining its cause. In 2000, and continuing into 2003 when IP completed its investigation of the possible reservoir leaks and other structural causes of the inventory shortfall, it would have been imprudent to begin reinjecting more inventory into the storage field. (IP RB at 14-15)

In its 7/8/10 response, IP claims there is additional evidence in the record of Docket 05-0743 that was not in the records of Dockets 03-0699 and 04-0677, and that there are also a number of differences in important components of the evidence in Docket 05-0743 from the evidence presented on the same topics in the records of Dockets 03-0699 and 04-0677.

In Section III of its 7/8/10 response, in discussing the third of the “key points relied upon by the Appellate Court in affirming the Commission’s Orders in Dockets 03-0699 and 04-0677 [that] are not supported by the record in Docket No. 05-0743”, IP argues that the Appellate Court’s analysis is based on statements about the contents of the 1999 Peterson Report that would not be supported by evidence in the record in Docket 05-0743. (IP 7/8/10 response at 12) IP refers to statements by the Appellate Court that “the Peterson report presented a clear indication that the deliverability issues at Hillsboro were due to injection metering problems”, that “many, if not most, of Illinois Power’s concerns with reinjecting the field too soon were unfounded based on a review of the 1999 Peterson report” and that “beginning in 1999, several reports and analyses indicated that the deliverability issue was caused by a field metering error rather than a structural one.” 382 Ill. App. 3d at 203-204.

According to IP, “although the record in all three cases shows that the Peterson Report (i) identified that the injection meters were over-registering injection volumes when the nearby plant compressors operated at certain levels, and (ii) provided estimates of the percentage over-registration errors on the injection meters at various levels of compressor operation (citation omitted), the Peterson Report certainly did not conclude that (or even address whether) the injection meter error was the cause of the Hillsboro deliverability issues, or whether or not it was appropriate to begin reinjecting inventory into the Field in 2000 notwithstanding the potential structural and geologic issues still being investigated.” (IP 7/8/10 response at 12-13) In IP’s view, “Regardless of what it was in the records of Dockets 03-0699 and 04-0677 that the Court believed supported the above-quoted statements about the Peterson Report, there is nothing in the Docket 05-0743 record that would support them.” IP also stated that a statement from the Staff witness’s testimony, based on the Peterson Report, that was cited in the Appellate Court decision that IP had been aware for several years (before 1999) of discrepancies between its well metering and its field metering was based on an erroneous statement in the Peterson Report, and that Staff had acknowledged the statement to be erroneous and had not asserted it or relied on it in Docket 05-0743. IP stated that the error in the main plant injection meter was not discovered until 1999 when it was identified by the Peterson study. (IP 7/8/10 response at 7-11.)

In its reply, **Staff** suggests that IP's argument really seems to be with the Appellate Court's opinion itself, and that the proper venue to attack that decision is through appealing it, not here at the Commission in a different docket. (Staff 7/29/10 reply at 7-8) Staff also argues that the record in Docket No. 05-0743 does support the Court's conclusion. (*Id.* at 7) Staff states, "Staff testified that had IP reviewed the well chart data it already had available to it at the time of the Peterson study, IP would have reached a different conclusion regarding the magnitude of the injection metering error." (*Id.* citing Docket No. 05-0743, Staff Ex. 2.00, pp. 26-27, and 29) In Staff's opinion, "This argument is consistent with Staff's position in both the 03-0699 and 04-0677 cases."

Further, Staff argues, "Staff also noted that the pre-expansion capacity of the Hillsboro storage field was 3.1 Bcf (post expansion was 7.6 Bcf) and it was significant that starting in the winter season of 1999-2000 that the Hillsboro storage field was unable to withdraw the 3.1 Bcf amount." (Staff 7/29/10 reply at 7-8 citing Docket No. 05-0743, Staff Ex. 2.00 at 40-41) Staff asserts that this argument was also part of Staff's case in Docket Nos. 03-0699 and 04-0677, and that in both instances, events occurred and reviews or analyses could have been done with a starting point in the 1999 year.

Staff further states, "IP also notes that the Appellate Court's opinion also states that 'the record indicate that Illinois Power failed to promptly pursue potential meter problems that were plainly stated and thoroughly analyzed in the 1999 Peterson Report.'" (Staff 7/29/10 reply at 8) Staff says IP then contended that this statement by the Court is inconsistent with statements elsewhere in the Appellate Court opinion that IP made operating corrections to eliminate the meter measurement error identified in the Peterson report in May 2000. (*Id.*, citing IP Response at 13) In Staff's view, IP had the opportunity to appeal the Appellate Court ruling if it believed the decision was based on incorrect information or was internally inconsistent with itself. Staff asserts, "The Commission should not be reading the Appellate Court decisions for alleged inconsistencies, but for the determination that the Appellate Court made." (Staff 7/29/10 reply at 8)

In Section IV.A of **IP's** 7/8/10 response, regarding evidence of whether IP was aware of injection metering errors at Hillsboro prior to the Peterson Report, IP argues that "there was testimony in Dockets 03-0699 and 04-0677 that, according to the Peterson Report, IP had known since at least 1996 that it had been unable to reconcile the injection volume data on its main plant injection meters with the I/W well chart data since 1994, thereby indicating that IP should have been aware of accuracy problems with the Hillsboro injection meters." According to IP, "there is no such evidence in the Docket 05-0743 record (because it was recognized that the statement in the Peterson Report was incorrect)." (IP 7/8/10 response at 14-15)

IP argues, in part, that "in concluding there was substantial evidence to support the Commission's conclusion that IP was imprudent in not determining in 2000 that the source of the Hillsboro deliverability problems was a metering error, and beginning to reinject the Field, the Appellate Court placed heavy reliance on evidence that as of

1999-2000, IP had been aware since at least 1996 (and possibly since 1994, shortly after the Hillsboro Field was expanded) that there were problems with the accuracy of the Hillsboro injection metering.” (IP 7/8/10 response at 8)

According to IP, “However, the evidence that IP was aware by at least 1996 that there were problems with the accuracy of the Hillsboro injection metering is not present in the record of Docket 05-0743.” IP continues, “In Dockets 03-0699 and 04-0677, this evidence was found in Staff witness Mr. Lounsberry’s prepared testimony, but Mr. Lounsberry did not so testify in Docket 05-0743.” (*Id.* at 9)

In IP’s view, this “key point” relied upon by the Appellate Court is not supported by the record in docket 05-0743.

In its 7/29/10 reply, pages 10-11, **Staff** responds:

Staff does not dispute the variances in the testimony. However, as noted above, this topic was addressed in Docket No. 04-0677. As IP itself noted, Staff’s testimony did not quote the same language in Docket No. 04-0677 that it had in Docket No. 03-0699. In Docket No. 04-0677, IP clarified this topic via cross-examination of Staff’s witness. (*Id.*, p. 10) As such, Staff does not agree that a large variation exists between the record of Docket No. 04-0677 and Docket No. 05-0743 on this topic. As such, IP’s concern is baseless

On page 5, Staff also argues:

IP correctly indicated that certain references to the Peterson Engineering Study that were contained in Mr. Lounsberry’s testimony in Docket No. 03-0699 were not repeated in Docket No. 04-0677 and Docket No. 05-0743. (IP Response, pp. 9-10) Although IP’s argument is that this absence of testimony differentiates the record in Docket No. 05-0743, IP concedes that this testimony was not a part of the record in Docket No. 04-0677. IP references its cross examination of Mr. Lounsberry in Docket No. 04-0677 as the basis for its conclusion that the assertions ‘were not correct.’ (*Id.*, p. 10) Thus, the records in Docket Nos. 04-0677 and 05-0743 are similar on this subject. Yet, the Appellate Court affirmed the Commission’s disallowance in Docket No. 04-0677.

According to Staff, “If IP truly thought this was a mistake on the Appellate Court’s ruling, the proper venue for making this claim would be through an appeal of the Appellate Court’s affirmation of the Commission’s decision.” (*Id.* at 6) On this particular point, the Commission notes that there does not appear to be disagreement between Staff and IP that the Appellate Court cited and relied on a statement in the record in Docket 03-0699 that was acknowledged in Docket 04-0677 to be incorrect and that the incorrect information is not included in the record in Docket 05-0743.

**IP** also argues, in Section IV.B of its 7/8/10 response “A critical prong of the Staff’s argument, and of the Commission’s conclusion in Dockets 03-0699 and 04-0677,

that IP should have started to reinject inventory into the Hillsboro Field in 2000, was the contention that IP should have known to use data from the Hillsboro I/W well meters on injections in the 1994-1999 period to compare to the injection volumes measured on the main plant injection meters, which (it is argued) would have shown IP that the inventory shortfall due to the main plant injection metering error was much larger than IP had estimated.” (IP 7/8/10 response at 15-22)

IP responded that it had not believed the I/W well meters or the injection data they recorded were sufficiently complete or accurate to provide a reliable measurement of injection volumes that could be used for such a purpose, and therefore IP was not imprudent in not using the I/W well metering data to make such a comparison in 2000. (Id. at 15) IP stated that the I/W well meters were not installed for nor used for inventory measurement, did not actually measure the volume of gas injected at each well, were not set up in accordance with American Gas Association guidelines for meters used to measure custody transfer volumes, a fact pointed out in the Peterson Report, and were never intended to be used for custody transfer volume measurement applications. IP also stated that in order to use the well charts to estimate the amount of gas injected into the storage field on a particular day, it was necessary to have the well charts from all 14 I/W wells, but that these charts had not been consistently retained, and so IP only had complete sets of well charts necessary to estimate the injections for a limited number of days. (IP IB at 29-31) In Docket 05-0743, IP asserts, it presented detailed testimony, which it did not present in Docket 03-0699 or Docket 04-0677, to show that in Docket 04-0476, IP’s 2004-2005 gas rate case, Staff witness Lounsberry testified that the Hillsboro I/W well metering data was not sufficiently complete, accurate or reliable to produce an acceptable estimate of the inventory depletion that had occurred at Hillsboro due to the main plant injection metering error. In particular, IP states that in Docket 04-0476, Staff witness Lounsberry gave the following testimony rejecting the use of the I/W well charts for purposes of estimating the gas volumes injected into Hillsboro because the I/W well charts were incomplete, inaccurate and unreliable:

Q. Why does IP’s calculation regarding its estimate for the overstatement of injections into the Hillsboro storage field concern you?

A. I have several concerns. First, regarding the use of the well charts to obtain an estimate, the [Hillsboro Study] Report, page 2, indicates that a 5-day “snapshot” was used as a proxy for the usage for the whole month. In essence, IP took one-sixth or 16.7% of that month’s data to extrapolate out that month’s usage at each individual meter. Using only 16.7% of the data to reach a conclusion is not the most accurate means of making an estimate.

Second, the well charts are records from attached orifice meters located at the individual well locations. As noted in the Peterson Study, page 17, those orifice meters are not set up according to American Gas Association (AGA) guidelines for orifice meters. Utilities follow AGA guidelines when they need to have high meter accuracies, such as when the results are used to determine a customer’s bills. Since the meters were not set according to AGA guidelines, the resulting

readings are not reliable enough to be used to accurately calculate the injections into the Hillsboro storage field. In fact, the Peterson Study, page 21, notes the volumes computed from the well metering should be considered estimates only. Further, the Company's response to Staff data request ENG 1.38 indicated that the orifice meters were installed to provide methanol injection control based on differential pressure and to provide an indication of relative flow between various wells, but were not intended for inventory measurement. Therefore, the correction values that IP calculated from the well charts are, at best, inexact estimates that should not form the basis for any adjustment.

Third, aside from questionable correlation factors resulting from the inaccuracies of the well charts, the data derived from the well charts was incomplete. IP failed to even attempt to calculate the correction factors for two of the six years (1996 and 1997) in the 1994 through 1999 period. Even considering the limited value of the well chart correction factors it is telling that the correction factors calculated, with one exception, are not anywhere near the number IP ultimately determined was the appropriate correction value. (IP 7/8/10 Response at 16-17)

IP also states that in its Order in Docket 04-0476, the Commission rejected the use of the I/W well charts as a basis for determining the amount of the injection metering error and resulting inventory depletion at Hillsboro. IP notes that the Commission stated in that Order: "According to Staff, the methods used by IP to calculate its Hillsboro storage field measurement errors, the resulting actual gas inventory, the recoverable base gas withdrawal, and the injection amounts are simply too speculative and not sufficiently accurate to provide a reasonable basis for an adjustment to and recalculation of the value of recoverable base gas amounts." (IP IB at 33)

IP additionally states that when it did use the I/W well charts in 2003 to attempt to estimate the amount of the injection metering error and resulting inventory depletion at Hillsboro, the average metering error it estimated using the four years of I/W well chart data that was available was about 12.5%, which was not a large enough error to account for the full amount of the inventory depletion. Therefore, IP states, use of the I/W well chart data in 2000 to attempt to estimate the injection metering error and resulting inventory depletion would not have accounted for the full amount of the inventory depletion and would not have led to a conclusion that the injection metering error was the sole cause of the Hillsboro deliverability decline. (IP IB at 34-35)

IP also states that in Docket 05-0743, IP witnesses Wayne Hood and Curtis Kemppainen provided additional testimony on this topic which was not given in Docket 03-0699 or Docket 04-0677. Passages of that testimony are contained in pages 4617-21 of IP's 7/8/10 response. These witnesses testified that subsequent to correcting the cause of the injection metering error in 2000, and then accumulating a period of measurement data on the main plant injection meters that was known to be accurate, IP was able to compare the accurate injection data from the main plant meters to injection

estimates based on the I/W well charts in order to establish greater confidence in the accuracy of the I/W well chart data. In comparison, in 1999-2000, IP had no such reliable baseline against which to test the accuracy of injection amounts developed using the I/W well data. They testified that if, in 1999-2000, IP had made a comparison between the injection volumes recorded on the inaccurate main plant injection meters and injection volumes estimated using the available I/W well chart data, IP would not have known if the resulting discrepancies between the numbers was due to errors in the main plant injection meters, inaccuracies in the I/W well chart data, or a combination of errors from both sources. They stated that the results of such a comparison would have been indeterminate. The IP witnesses also pointed out that although IP conducted the analysis described above after the main plant injection meter error was corrected to evaluate the accuracy of the I/W well chart data, the Staff witness testified in Docket 04-0476 that the results of that analysis still showed a discrepancy between the main plant meters and the I/W well chart data and that the results were not sufficient to establish that the injection estimates obtained from the I/W well chart data were accurate.

The IP witnesses testified that “the underlying, common fact is that if the I/W well data was not sufficiently accurate and complete in 2004 to produce reliable and acceptable estimates of the amount of the injection meter over-registration [as the Staff witness testified and the Commission concluded in Docket 04-0476], then it was not sufficiently accurate or complete in 1999-2000” to use for this purpose. (IP 7/8/10 Response at 19) The IP witnesses concluded, with respect to the Staff witness’s argument that in 1999-2000, IP should have made a comparison between the plant metering injection records and the injection volumes estimated using the I/W well chart data to calculate the amount of the inventory depletion, that:

His testimony is hypothetical, speculative and hindsight. Second, it is based on an incorrect premise because in late 1999-early 2000, the Company was aware of the existence of the I/W well chart data, but did not believe it to be accurate or reliable for all the reasons we (and Mr. Lounsberry, in Docket 04-0476) have previously discussed. Mr. Lounsberry assumes IP would have believed the I/W well injection measurements to be accurate and reliable when that was not the case and in fact it was recognized that the I/W well metering was not installed in accordance with AGA metering guidelines and was never used or intended to be used for volumetric measurement purposes. Further, his testimony is hindsight and second-guessing because, as we have previously described, IP had already developed an estimate of the injection meter over-registration, using the best information available, which we believed to be reasonably accurate. The available 1994 I/W well chart data was not used in 2000 because the Company had no basis to believe it would add any additional value to the analysis that had been conducted. (IP 7/8/10 Response at 20-21)

It is IP’s position, supported in part by the additional testimony in Docket 05-0743, “that IP cannot be found to have been imprudent in failing to use the I/W well chart metering data in 2000 to estimate the amount of the Hillsboro inventory depletion, because IP believed the I/W well chart metering data was not sufficiently complete,

accurate or reliable to use for that purpose, when Mr. Lounsberry testified in Docket 04-0476 that the I/W well chart metering data was not sufficiently complete, accurate or reliable to use to estimate the Hillsboro inventory depletion.” (IP 7/8/10 response at 18)

In IP’s view, “it is noteworthy that in his prepared rebuttal testimony in Docket 05-0743, Mr. Lounsberry acknowledged that he has never accepted as accurate IP’s estimate (whether based on the I/W well meter data or the other methods IP used) of the total amount of the Hillsboro inventory depletion caused by the injection meter over-registration between 1993 and 1999.” (IP 7/8/10 response at 21-22, citing Docket 05-0743, Staff Ex. 4.00 at 45) IP also points out that in this case, Mr. Lounsberry testified that he does not know the level of accuracy under which the I/W well meters operated. (Id. at 17, citing Docket 05-0743, Staff Ex. 2.00 at line 634) In light of Mr. Lounsberry’s acknowledgement of ~~this~~these facts, IP asserts, IP should not be found imprudent for not using I/W well meter data in 2000 to determine the amount of the Hillsboro inventory depletion.

According to IP, much of the above-referenced testimony of the IP and Staff witnesses in Docket 05-0743, and in particular the testimony of the Staff witness from Docket 04-0476, along with the Staff witness’s admissions in Docket 05-0743 that he does not know the level of accuracy of the I/W well meters and that he has never accepted as accurate IP’s estimates of the inventory depletion developed using the I/W well chart data, is new or different testimony on one of the principal components of Staff’s theory (and the Commission’s conclusion in Dockets 03-0699 and 04-0677) as to why IP was imprudent, that was not in the record in the two earlier dockets. IP argues, “This new and additional testimony specifically undercuts the Commission’s conclusion in the Docket 03-0699 Order (which it adopted for purposes of the Docket 04-0677 Order) that IP should have used the I/W well charts to calculate the overstated injections in 2000 (Order in Docket 03-0699, p. 36), and warrants a different conclusion in Docket 05-0743.” (IP 7/8/10 response at 21-22)

IP further argues that on this “key point” relied upon by the Appellate Court, the record in Docket 05-0743 is materially different from the record in Dockets 03-0699 and 04-0677 on which the Appellate Court based its analysis. (IP 7/8/10 response at 11-12)

In its reply, **Staff** disputes IP’s claims that there a material difference in the information that was available to the Commission, or the Appellate Court, between Docket Nos. 04-0677 and 05-0743. (Staff 7/29/10 reply at 11) According to Staff, IP provided a detailed review of the variances between the testimonies filed in Docket Nos. 03-0699/04-0677/04-0476 versus Docket No. 05-0743 on the issue of the accuracy of the well chart data, in particular, Mr. Lounsberry’s comments regarding the accuracy of the date for use in IP’s Docket No. 04-0476 gas rate case versus the PGA proceedings. Staff agrees that the testimony differed. Staff asserts, however, that “the cross examination in Docket No. 04-0677 (Docket No. 04-0667, Tr. pp. 61-76, pp. 127-128, June 20, 2006) covered this same topic”, and the Appellate Court through the 04-0677 case had available to it the manner Staff viewed the information for use in a PGA proceeding versus its use in a rate case proceeding.” (Staff 7/29/10 reply at 11) As such, Staff disputes IP’s claims that there a material difference in the information that

was available to the Commission, or the Appellate Court, between Docket Nos. 04-0677 and 05-0743. (Staff 7/29/10 reply at 6, 11)

The Commission observes that it is clear that there is significant new and additional testimony from both parties in Docket 05-0743 on the topic of whether IP was imprudent in not using the I/W well chart data in 1999-2000 to determine the amount of the main plant injection metering error, and whether that exercise would have shown IP that the metering error was the sole cause of the Hillsboro deliverability problem and that it should begin reinjecting replacement inventory in 2000 and ignore the potential reservoir leaks and other structural problems indicated by the available information at the time that could have been the cause of the Hillsboro inventory depletion and deliverability problem. It will be necessary for the Commission to carefully take this evidence into account in reaching its decision in this docket.

IP also addresses what it refers to as additional evidence on the reasonableness of the estimate IP developed in 2000, after receiving the Peterson Report, of the amount of the Hillsboro main plant injection metering error. IP describes this issue as related to the issue of whether IP should have used the I/W well chart metering data from 1994-1999 that was available in 2000 to determine the cumulative amount of the Hillsboro main plant injection metering error. (IP 7/8/10 response at 22-25)

IP states, “Staff witness Lounsberry contended that IP’s estimate was unreasonable because it was based on estimates of the amounts of time the compressors operated at different loading levels (recall that the meter error occurred because the meters over-registered volumes when the compressors located nearby were operating at certain levels) but there was not enough data available in the plant compressor operating records, or logs, to provide the basis for an estimate.” (*Id.* at 23) In Docket 05-0743, AmerenIP asserts, IP witnesses Hood and Kemppainen provided additional testimony to explain how IP developed its estimate of the injection metering error in 2000, including showing that the estimate IP developed in 2000 was not based on data from the compressor logs. IP provides quotations of such testimony that was not, IP states, provided in Dockets 03-0699 or 04-0677 (*Id.* at 23-24), including the following from IP Exhibit 3.2, pages 9-10, in Docket 05-0743:

First, ... we did not use information from the compressor logs. We did use the calculations of the injection error at the 50% loading step and the 100% loading step as determined in the Peterson Study and the judgment and experience of the plant operating personnel as to the amount of time the compressors had operated at these loading levels. We agree that in the 2004 Hillsboro Study it was stated that the compressor logs could not be used to estimate the injection metering error ‘because of the lack of records during the off shift’, but that was the same conclusion that had been reached in 2000. We do not agree with Mr. Lounsberry’s statement at lines 278-282 that the Hillsboro Study reached the conclusion that the Company “did not have sufficient information to use . . . the experience of on-site personnel to determine any injection error correction factors from estimating the loading factors from the compressors....”

In IP's view, the additional evidence on this topic in Docket 05-0743 undercuts the Commission's conclusion in the Docket 03-0699 Order (which it adopted for purposes of the Docket 04-0677 Order ) that 'it was unreasonable for IP to calculate the overstated injections in 2000 based upon estimated compressor loading levels when it had insufficient information from the compressor logs to make a reasonable estimate of loading levels,' (Order in Docket 03-0699, p. 36), and warrants a different conclusion in Docket 05-0743." (IP 7/8/10 response at 24)

In its reply, **Staff** disputes IP's claim that this additional testimony undercuts the Commission's conclusion. (Staff 7/29/10 reply at 12-13) In particular, Staff cites the following Staff testimony its Docket No. 05-0743:

Q. Do you agree with the Panel's second statement that the Company's estimated compressor loading values were supportable?

A. No. I do understand that the Company, in the Panel's opinion, did what it could at that time to obtain as good an estimate as possible about the compressor loading rates. However, the fact remains that the Company when it conducted its Hillsboro Study in 2004, reached the conclusion that it did not have sufficient information to use either the data from the compressor logs or the experience of on-site personnel to determine any injection error correction factors from estimating the loading factors from the compressors. Therefore, I continue to disagree with the Company that its original estimate from late 1999 or early 2000 for the metering errors it obtained from estimating the loading factors from the compressors at the Hillsboro storage field were supportable. (Docket No. 05-0743, Staff Ex. 4.00 at 13)

In short, Staff states, after the Commission issued its Order in Docket No. 03-0699, IP provided additional testimony in Docket No. 05-0743 in an attempt to explain why it considers its actions with regard to its use of the compressor logs as prudent. Staff disagreed with the Company's arguments. (Staff 7/29/10 reply at 13)

The Commission observes that the record in Docket 05-0743 clarifies that IP did not use the compressor operation logs in 1999-2000 to estimate the cumulative amount of the over-registration that had occurred on the main plant injection meters, but instead used other information. However, the reasonableness of IP's efforts to estimate the amount of the metering error in 1999-2000 remains a disputed issue to be evaluated in this case.

## 2. Orifice Metering Accuracy

As in the prior PGA dockets, Staff also concluded that the Company did not place a high priority on accurate measurement for natural gas withdrawals from the Hillsboro storage field immediately after the 1994 expansion of the field. In fact, Staff asserts, its review indicated that had the Company followed some basic industry standards, the Company would have found the withdrawal meter accuracy problem shortly after the meters were installed. In Staff's view, this failure is yet another example of the

Company's imprudent actions regarding its operations of the Hillsboro storage field. (Staff IB at 17-25)

In December 1999, Staff states, the Company received the Peterson Report which noted several problems with the metering used to measure the withdrawals from the Hillsboro storage field. In particular, Staff asserts, the Peterson Report noted that there was an incorrectly sized orifice plate installed at one location because the plate size stamped on the orifice plate was incorrect due to a manufacturer error, and also found that the orifice plates associated with the orifice meters at the Hillsboro storage field's North and South metering runs had not been pulled and inspected since their original installation. (Staff IB at 17; Staff Ex. 2.00 at 31)

According to Staff, the Peterson Report indicated that the Company had not thoroughly inspected its orifice meters, used to measure its withdrawals from the Hillsboro storage field, for over six years, from 1993 through 1999, and also indicated that when the orifice plates were pulled and cleaned during the plant visit, the plant personnel reported that the South Field Primary Orifice Meter was very dirty and the other plates were dirty to a lesser degree. Further, Staff states, the Peterson Report noted that dirty plates can introduce significant metering errors, which can have a negative or a positive bias, and also noted that American Gas Association ["AGA"] Report #3 states that "the plate shall be clean at all times and free from accumulations of dirt, ice, and other extraneous material..." (Staff IB at 17-19; Staff Ex. 2.00 at 33, 36) Staff adds that Peterson Engineering, after it reviewed the Hillsboro storage field orifice metering situation, recommended that the "Orifice plates should be pulled, inspected, cleaned and replaced as necessary, at least annually and after process upsets and changes to ensure metering accuracy." (Staff IB at 24)

Staff also submits that the Company's actions were not consistent with the Commission's requirements for orifice meters in 83 Illinois Administrative Code 500, Standards of Service for Gas Utilities ("Part 500")

**IP** disagrees with Staff's position. (IP IB at 35-43; IP RB at 16-21) IP argues, in part:

Staff's argument is based entirely on the Company's inspection practices with respect to the HSF withdrawal meters. The HSF deliverability decline resulted from over-registration by the Hillsboro injection meters and was not due to any problem with the withdrawal meters.

Staff's arguments are based on a Commission regulation and industry documents that by their terms are not applicable to, and do not establish standards the Company was required to follow with respect to, the HSF withdrawal metering.

IP further argues:

The Company employed maintenance and inspection practices for the HSF withdrawal meters that were appropriate in light of the purpose, use and operation of these meters and their location at the Field.

Even if the Company had found and corrected the mis-labeled orifice plate on one of the four HSF withdrawal meters earlier than 1999, this would not have led to earlier discovery of the extent of the over-registration that had occurred on the HSF injection meters. In fact, even if there had never been a withdrawal metering error, there is no basis to conclude that the true extent of the injection meter over-registration would have been discovered sooner. The Company did under-estimate the amount of the injection meter over-registration in 2000, after it was first discovered, but the reasons for the under-estimation were independent of the much smaller withdrawal meter error.

(IP RB at 16)

IP also states that Commission Code Part 500, which was relied on by Staff, is inapplicable to storage fields; and that AGA Report #3, also relied on by Staff, is an installation standard, not an operation and maintenance standard, and the provisions of Report #3 quoted by Staff specify the condition of an orifice plate at the time it is installed, not during its operation; and finally that the AGA Gas Measurement Manual, the other document relied on by Staff, is a guideline document only, not a regulation or an industry standard, and further that it states that maintenance practices should be adopted based on the importance of the meter, which IP contends was the case with respect to the maintenance practices it followed for the non-custody-transfer Hillsboro withdrawal meters. (IP IB at 36-38; IP RB at 17-18)

IP also asserts that when the Hillsboro storage field was expanded in 1993, the Company added instrumentation to electronically measure and perform the computation of withdrawal volumes, which improved measurement accuracy. Therefore, IP argues, Staff's assertion that "IP did not place a high priority on accurate measurement for withdrawals from the Hillsboro storage field immediately after expansion of the field" is unfounded. (IP IB at 38; IP RB at 18)

Regarding Staff's argument that IP ignored the recommendations of Peterson Engineering to inspect the withdrawal orifice meters annually, IP responds that the Peterson metering review was not conducted and the Peterson Report was not issued until late 1999. (IP RB at 19)

According to IP, contrary to Staff's argument, the Company did not ignore the orifice meters, and did in fact conduct an annual inspection and maintenance procedure for the orifice meters. IP states that its inspection and maintenance practices for the withdrawal meters were appropriate in light of the use to which they were put, their physical location at the storage field and the frequency with which they were monitored by the storage field personnel. IP states that at Hillsboro, the orifice meters are located a short distance downstream of the dehydration towers; due to this location, the opportunity for contaminants to impinge or degrade the orifice meters is remote. Additionally, the frequency of operation of the orifice meters is much less than the

frequency of operation of custody transfer meters, which are the types of meters to which the documents relied on by Staff apply, and which typically have gas flowing through them virtually every day of the year. The Hillsboro orifice meter that had the mislabeled orifice plate had operated a total of only 195 days, or a total of about 6-1/2 months of operation, in the six years from the expansion of the storage field in 1993 to 1999. IP pointed out that unlike a meter at a customer's premises, the Hillsboro withdrawal meters are monitored in operation by storage field personnel who are on site more than 40 hours per week. Finally, IP stated that there are other ways to identify potential problems with an orifice meter plate without physically disassembling the meter to inspect the plate, such as monitoring the pressure drops across the orifice openings on the orifice meters. (IP IB at 38-3940; IP RB at 19; AmerenIP Ex. 3.0 at 33)

In its 7/8/10 response, page 25, IP cites “additional evidence on the impact of IP not discovering the Hillsboro withdrawal meter orifice plate problem sooner.” IP states that IP witnesses Hood and Kemppainen provided testimony in Docket 05-0743, including the passage below, which they did not provide in Dockets 03-0699 and 04-0677, to rebut Staff witness Lounsberry’s argument that if IP had discovered the Hillsboro withdrawal meter orifice plate problem sooner than 2000, IP likely could have determined the true extent of the Hillsboro main plant injection metering error when it was discovered in 1999. This topic is related, in part, to the issue concerning the basis and reasonableness of the estimate of the cumulative amount of the injection metering over-registration that IP did make in 2000.

The IP witnesses stated, in part, “[T]here is no basis for Mr. Lounsberry’s assertion ... that had IP found and corrected the orifice plate problem sooner, this would have allowed the Company the opportunity at the time of the Peterson report ‘to concentrate on the true magnitude of the injection metering error, instead of having the opportunity to reach a conclusion based on unfounded assumptions that the injection and withdrawal metering errors basically offset one another.’” They added, “The Company did not simply ‘assume’ that the injection and withdrawal metering errors offset each other; rather, independent determinations were made of the extent of each error.” (IP 7/8/10 response at 25, citing AmerenIP Ex. 3.0 at 41)

In its 7/29/10 reply, page 13, **Staff** stands by its assertion that had IP found the Hillsboro withdrawal meter orifice plate problem sooner than 2000, IP likely could have determined the true extent of the Hillsboro main plant injection meter error when it was discovered in 1999. Staff states, “As in Docket Nos. 03-0699 and 04-0677, the case involves differences of opinion between experts and the record was sufficient for the Commission to reach the conclusions it reached in the preceding dockets and the same is true in this proceeding.” (*Id.*)

### 3. Withdrawal Volumes

As in the two preceding PGA dockets, Staff asserts that the volume of gas a utility withdraws from a storage field during the year provides an indication of the volume of top gas that is maintained by the field, and as such, IP’s actual operating experience with the field should have provided clues to the utility that it was experiencing an inventory problem. (Staff IB at 25-26)

According to Staff, with the pre-expansion field, the Company expected to cycle 3.1 Bcf in a normal winter, and the Company had the opportunity to observe that the working gas volumes in the reservoir had declined to below the pre-expansion volume of 3.1 Bcf, even though the number of injection/withdrawal (“I/W”) wells at the field increased from five to 14 and that the total volume of gas in the field (sum of working gas and base gas) went from 10.2 Bcf to 21.7 Bcf. (*Id.*; Staff Ex. 2.00 at 40-42)

The last year the Company was able to cycle a gas volume in excess of 3.1 Bcf was the winter season of 1998/1999 when about 4.1 Bcf of gas was cycled. The Hillsboro storage field for the following two winter seasons, 1999/2000 and 2000/2001, cycled only 3.0 Bcf and 2.9 Bcf, respectively, of its inventory. Staff asserts that the Company failed to act upon this information and instead waited until 2003 to start returning the inventory shortfall, which Staff considers to be a missed opportunity to identify the inventory problem and return the gas to the field in a timely fashion. (Staff IB at 25-26)

In response, IP claims the fact that the Company could not withdraw as much gas as it had withdrawn prior to expanding the Field did not tell the Company what the source of the problem was. IP states that there could have been adequate gas injections into Hillsboro to support higher withdrawal levels, but the ability to withdraw more than 3.1 Bcf could have been due to reservoir or structural problems, such as injected gas migrating or “fingering” to locations that were inaccessible by the existing withdrawal wells, or formation damage to the wells that limited their ability to access and withdraw all the working gas inventory in the storage field. (IP IB at 43-44; IP RB at 22) To the contrary, IP argues that, withdrawing less gas than the pre-expansion withdrawal volumes was consistent with the occurrence of a breach in the underground reservoir during the expansion process causing injected gas to be lost off-structure (as well as other possible causes for the “inventory shortfall”). IP adds, “Nor did this observation indicate it would be prudent for the Company to be reinjecting significant amounts of replacement inventory while the possibility of structural or reservoir causes for the deliverability decline still existed and were being investigated.” (IP RB at 22) IP states that as of 2000-2001, it was continuing to investigate the existence of possible reservoir or structural problems at Hillsboro such as those just mentioned. (IP IB at 44) IP contends that the Staff testimony on this point shows at most a difference of opinion between the Staff witness and the IP personnel who were involved in investigating the cause of the Hillsboro deliverability decline as to what conclusions IP should have drawn from the reduced withdrawal volumes, and does not provide a basis for concluding that IP acted imprudently. (IP IB at 44-45)

#### 4. Other Actions

Staff also reviewed the information and basis relied upon by the Company to support conducting the vertical seismic survey, or vertical seismic profile (“VSP”), in 1997 at the Hillsboro storage field. This information, Staff states, indicated that the purpose of the VSP was to determine the feasibility of a 3D seismic survey for optimizing gas storage reservoir operations and future field expansion. Further, in a Company letter to the Gas Research Institute (“GRI”) regarding the VSP, the Company

sought to have GRI consider funding a portion or all of the cost of the “proposed preliminary experimental work”. (Staff IB at 27; Staff Ex. 4.00 at 23)

Staff states that the first written acknowledgement of deliverability problems at the Hillsboro storage field came from documentation, associated with the 1998 3-D seismic survey, which indicated that the 1998 3-D seismic survey at Hillsboro was conducted to optimize both future expansion and current reservoir operations which did not meet the design criteria for annual withdrawal volume. Further, Staff asserts, these documents indicate that one of the benefits associated with doing this study is that the Company avoids having to inject 3 Bcf of base gas to regain the 7.6 Bcf in annual deliverability. (Staff IB at 27)

In Staff’s view, this information indicates that the Company was using an experimental method to review the Hillsboro storage field and the initial basis for doing so was not necessarily to investigate the deliverability problems that the field was experiencing. Further, Staff states, the Company already recognized in 1998 the potential need to return inventory to the field in order to return it to its rated deliverability, but instead of replacing or adding any inventory, the Company waited another five years before it injected any additional gas into the Hillsboro storage field. In short, Staff argues, had the Company detected the large inventory shortfall in a timely fashion, the Company should have begun replacement of the gas shortly thereafter. (*Id.* at 27-28)

In response, **IP** states, in part, that IP witnesses Hood and Kempainen explained in their testimony that the purpose of conducting the VSP was “to evaluate whether conducting a three-dimensional (‘3-D’) seismic profile of the Field would be a viable approach to defining the structure of the Field.” (IP IR at 23-24; AmerenIP Ex. 3.0 at 8) In IP’s view, the activities described in AmerenIP Exhibit 3.3 were relevant areas of inquiry to investigate the deliverability problems that had arisen subsequent to the expansion of the Field and that could have resulted from the activities that had been undertaken to expand the capacity of the underground reservoir.

The bottom-line point, IP states, is that the Company suspected, with good basis, that the deliverability performance of the recently-expanded Field was being impacted by a structural problem with the reservoir, and the Company needed the type of information a 3-D seismic analysis could provide on the shape and characteristics of the underground structure and the gas bubble in order to fully investigate this possibility. (IP RB at 25) Therefore, the Company first commissioned performance of a VSP in order to determine if a 3-D seismic analysis could in fact be used effectively to determine structural characteristics of the underground reservoir. (AmerenIP Exs. 3.0 at 8-9 and 3.2 at 19-20)

Regarding Staff’s reference to the description of VSP as “proposed preliminary experimental work”, IP submits that the VSP was in fact “preliminary work” in that it was a feasibility tool to determine if a 3-D seismic analysis would be a viable technique for obtaining structural information on the HSF underground reservoir. (AmerenIP Ex. 3.2, at 20) With respect to the reference to the VSP as “experimental”, IP states, using the VSP and the 3-D seismic techniques for underground gas storage reservoirs was innovative and state-of-the-art at the time. (IP RB at 25-26)

In response to Staff's comment about the benefit of avoiding having to inject 3 Bcf of base gas to regain the 7.6 Bcf in annual deliverability, IP asserts that if the migrating gas could be located using the 3-D seismic analysis, it would be possible to drill additional wells to access this gas, and thus replacement of the lost gas would not be necessary. (IP IB at 16-17; IP RB at 28-29) According to IP, the 3-D seismic survey would provide a better image of the underground structure, and could thereby enable the Company to determine if in fact there were previously-unidentified substructures to which gas had migrated, and from which it could be accessed.

**5. Other Possible Causes of the Hillsboro Deliverability Decline that IP Was Investigating in 2000-2003**

IP argues that even if it had recognized in 2000 that the injection meter over-registration was much larger than estimated at the time, this information would not have warranted commencing substantial reinjections of replacement gas inventory into Hillsboro at that time, because this determination would not have enabled IP to rule out reservoir or structural problems as a cause of the Hillsboro deliverability decline. As a result, IP states, it could not have prudently commenced reinjecting significant amounts of replacement gas inventory in 2000, before completing its investigation of the potential reservoir and structural problems and eliminating such problems as causes of the deliverability decline. IP argues that as of the beginning of the 2000 injection season, the results of the 3-D seismic analysis indicated there was a substructure to the northeast of the storage field to which approximately 3.5 Bcf of gas had migrated. IP states that at the time, this and other possible reservoir/structural causes were plausible causes of the deliverability decline. IP states it also knew the storage field's deliverability had declined by about 3.1 Bcf, which was consistent with the size of the substructure that was believed to exist. IP contends that based on the information available at the time, injecting additional gas to compensate for the injection meter over-registration would have left the possibility that some or all of the additional gas injections would migrate off structure, and the deliverability problems would continue; further, the injection meter over-registration, the existence of the separate substructure, and the other possible reservoir/structural issues being evaluated in 2000 were not mutually exclusive. (IP IB at 45-46)

Therefore, IP contends, in the Spring of 2000, knowledge that the injection meter over-registration substantially exceeded the withdrawal meter over-registration would not have been sufficient information to conclude that the injection meter over-registration was the sole cause of the deliverability decline, or to rule out possible structural causes. IP states that it drilled the Furness Well in November 2000 to confirm or reject the existence of the substructure adjacent to the main reservoir to which gas was migrating, as indicated by the 3-D seismic analysis. IP states that it was not until the Furness well was drilled in November 2000 that IP obtained additional information to cause the existence of a substructure to the northeast of the storage field to be questioned. IP states that given the likelihood, in light of the recent expansion of Hillsboro, that a structural problem was a cause of the deliverability decline, it was appropriate in 2000 to continue investigating potential structural causes, including drilling the Furness well, before making a final determination as to the cause of the

deliverability problem and taking specific corrective actions or reinjecting large quantities of replacement inventory. IP detailed additional actions it took in 2001 and 2002 to investigate and rule out other possible reservoir or structural causes of the Hillsboro deliverability decline, until it was able to determine in 2003 that the deliverability problem was not due to a reservoir or structural cause and therefore it could safely begin to reinject replacement inventory. (IP IB at 46-47, 50-53)

IP argued that as a result, the Staff witness's position that IP should have begun to reinject replacement inventory into Hillsboro in 2000 is untenable, and certainly does not indicate *imprudent* actions by IP. IP argues that, given the information it had available in early 2000, it would have been extremely unwise to have begun reinjecting substantial quantities of replacement gas before eliminating the realistic possibilities of structural or geologic-related problems with the reservoir. IP states that even had it possessed better knowledge of the full extent of the injection meter over-registration, it still would have been unwise and imprudent to being reinjecting significant quantities of replacement gas into Hillsboro before fully investigating the implications of the data and analyses that indicated gas was migrating from the main reservoir structure to areas that were not accessible by the withdrawal wells. (IP IB at 47-48)

IP argues that the record shows at most a difference of opinion between IP and Staff as to what actions should have been taken in 2000, 2001 and 2002, with Staff's opinion having been formulated with the benefit of hindsight. IP contends that the actions it took during this period were based on the information available to it at the time, and that a difference of opinion is not a sufficient basis to conclude that IP acted imprudently. (IP IB at 53)

## **B. Overall Storage Concerns**

As in the earlier PGA dockets, 03-0699 and 04-0677, Staff also addressed several overall concerns regarding the manner that the Company has operated its natural gas storage fields in the recent past. Staff considered these concerns relevant to the prudence of the Company's actions because the Company has the responsibility to maintain the capabilities of its storage facilities. In Staff's view, these storage concerns indicate that the Company has failed in that responsibility. Staff believes these concerns also indicate that the Company's actions, or lack thereof, exacerbated or contributed to the problems faced at the Hillsboro storage field, and as such, has a bearing on the prudence of the Company's actions within the instant proceeding. (Staff IB at 28)

In particular, Staff again addressed four areas for concern regarding the Company's storage operations, which are identified below.

### **1. Reduction in Peak Day Capacity**

Staff testified that the Hillsboro storage field was rated at 125,000 Mcf/day until it was reduced to 100,000 Mcf/day in the fall of 1999, and not returned to the 125,000 Mcf/day capacity rating in the fall of 2003. The Company had also reduced the peak

day capacity rating of the Shanghai storage field by 25,000 Mcf/day for the winter season of 2001-2002. (Staff IB at 29; Staff Ex. 2.00 at 45)

According to Staff, the reduction of the peak day capacity at a storage field is a rare event. Staff witness Mr. Lounsberry said IP was the only storage field operator in the state to experience problems to such a degree that it needed to reduce the peak day capacity rating at its two largest storage fields. Staff believes IP's reduction of the peak day ratings at its two largest storage fields reflects negatively on its management or oversight over those facilities. (Staff IB at 29; Staff Ex. 2.0 at 45-46)

Staff also stated that there is a difference between a decline in an individual storage well deliverability and the overall deliverability of a storage field. For example, Staff noted that the Company had provided information that indicated two wells at the Hillsboro storage field were not productive during the 1995-1996 heating season; however, the Company did not reduce the peak day rating of the storage field until 1999. Obviously, Staff argues, the combined output for the remaining wells at Hillsboro more than made up for the shortfall caused by the other two during the interim. To Staff this indicates that surplus deliverability capacity exists when all of the wells within a storage field are considered.

In response, **IP** asserts that deliverability decline has been reported to be the most common problem experienced by operators in the gas storage industry. IP states that, based on information published by the U.S. Department of Energy, based on more than 350 U.S. storage reservoirs, most gas storage operators experience a loss of deliverability over time, and the industry spends \$80 - \$100 million per year on efforts to offset the decline in deliverability. IP states, therefore, that based on the experience of the U.S. gas storage industry, declines in storage field deliverability are not an uncommon event. (IP IB at 56; IP RB at 30)

AmerenIP witness Mr. Hower stated the most frequent cause was gas leaks or gas losses across faults or through fractures in the reservoir rock, resulting in a permanent loss of gas and an unwanted migration of gas into non-storage areas. (AmerenIP Ex. 5.1 at 6-7) Further, IP asserts, neither Mr. Hower's own professional experience nor the overall experience of the gas storage industry as reported by the U.S. Department of Energy ("DOE") is specific to a decline in performance in individual wells. To the contrary, IP argues, the DOE data is based on declines in deliverability of gas storage reservoirs, and in Mr. Hower's professional experience the causes of the deliverability declines have proven to be overall loss of inventory through leakage or migration from the structure, not problems at individual wells. (IP RB at 30)

IP further addresses Shanghai Storage Field deliverability problems in Section IV.E of its 7/8/10 response. According to IP, a principal component of Staff's argument and the Commission's conclusions in Dockets 03-0699 and 04-0677 -- that IP was imprudent in not discovering the cause of the Hillsboro deliverability problems before 2003 -- was that IP had earlier experienced a deliverability problem at its Shanghai Storage Field. (IP 7/8/10 response at 25) Additionally, IP asserts, the Appellate Court also relied on what it stated were similarities between the Shanghai and Hillsboro deliverability problems and between metering errors that occurred at each storage field,

and that these “key points” relied upon by the Court are not supported by the record in Docket 05-0743. (IP 7/8/10 response at 13-14)

IP points out that in ICC Docket 01-0701, the Commission thoroughly reviewed the facts relating to the reduction in peak capacity at Shanghai, which occurred for one winter season, 2001-2002, but that the Commission rejected Staff’s arguments that IP was imprudent, and concluded instead that IP acted reasonably and prudently in reducing the peak capacity of Shanghai for the 2001-02 winter. IP therefore argues that there is no basis for using the Shanghai capacity reduction as the basis for an imprudence finding against IP at Hillsboro. Additionally, IP states that the peak capacity reduction at Hillsboro was restored in 2003 and that Hillsboro operated at its full peak capacity rating in 2005, the year being reviewed in Docket 05-0743. (IP IB at 55)

In Docket 05-0743, IP presented additional evidence intended to show that the causes of the deliverability problems that had been experienced at the Shanghai Storage Field were different from the cause of the Hillsboro deliverability problem. Passages of such testimony by Mr. Shipp are contained in IP’s 7/8/10 response. In particular, IP notes that Mr. Shipp testified in Docket 05-0743:

Q. Mr. Lounsberry’s testimony links the reduction in the Hillsboro peak day deliverability rating and the reduction in the Shanghai peak day deliverability rating. Were the causes of the peak day deliverability capacity reduction at the two storage fields the same or similar?

A. No. Illinois Power reduced the peak day deliverability rating of the Shanghai Field prior to the start of the 2001-2002 winter season specifically due to concerns that the then-current peak day deliverability could not be achieved, due to deliverability concerns with certain withdrawal wells resulting from sanding and from scaling of perforations at certain wells. Based on work that was done on the wells in late 2001, IP was able to restore the peak day deliverability rating of the Shanghai Field to its original value prior to the 2002-2003 withdrawal season. With respect to Hillsboro, Mr. Hood and Mr. Kemppainen discuss in detail the cause and investigation of the Hillsboro peak day capacity derating, which occurred prior to the 1999-2000 winter season and was restored prior to the 2003-2004 winter season. In summary, the cause of the Hillsboro deliverability decline was depletion of the inventory in the Field due to over-registration of injected gas volumes by the Hillsboro main plant injection meters, which caused IP to believe there was more gas in the Field than was actually the case. Further, at Shanghai, only peak day deliverability was reduced, not overall (total annual) deliverability. In contrast, at Hillsboro, total deliverability was reduced over time which led to the reduction in peak day deliverability. (IP 7/8/10 Response at 26-27)

IP argues on pages 26-27 of its 7/8/10 Response:

As the quoted testimony explains, Shanghai experienced a reduction in its peak day deliverability rating for one winter season, but unlike Hillsboro, did not experience a reduction in the amount of inventory that could be cycled and withdrawn over the course of a winter season. Also, in the instant Docket, 05-0743, which pertains to the year 2005, AmerenIP's gas costs were not impacted by a reduction of Hillsboro's peak day capacity, because Hillsboro's peak day capacity was restored to its full value by the start of the 2003-2004 winter season. (citation omitted)

IP also quotes the following "new testimony" from Mr. Shipp in Docket 05-0743 "specifically about the causes of the metering errors that had occurred at Shanghai (which was not a cause of the one-season peak day deliverability reduction) and Hillsboro, to show that the metering errors occurring at the two storage fields had completely different causes." (IP 7/8/10 response at 27-28):

Mr. Lounsberry does not disagree with my testimony that well sanding problems were a cause of the reduction of the peak day rating at Shanghai but were not a cause of the deliverability issue at Hillsboro. Further, regarding the Shanghai metering error, as the Company stated in its testimony in Docket No. 01-0701, the metering error at Shanghai was not the cause of the temporary reduction in the peak day deliverability of the Shanghai Storage Field, and in fact the volume of gas associated with the metering error at Shanghai was an amount that would not have affected the deliverability of the Shanghai Storage Field. Additionally, the cause of the injection metering error at Shanghai was completely different from the cause of the injection metering error at Hillsboro. At Shanghai, although there was nothing physically wrong with the meter, the error occurred because the incorrect K-factor constant was programmed for the gear ratio of the meter. This incorrect value was discovered during an inspection of the meter and was promptly corrected. Further, because the date on which the incorrect K-factor constant had been programmed was known, and the amount of the measurement error was a factor of the difference between the correct and incorrect gear ratio K-factors, IP was able to calculate the exact volume of the Shanghai meter error. In contrast, at Hillsboro, as Mr. Hood and Mr. Kemppainen have discussed at length in their testimony, the injection metering error was caused by operation of the plant compressors at certain loadings causing the turbine meters to overspin. Further, as Mr. Hood and Mr. Kemppainen have discussed, at Hillsboro unlike Shanghai there was no easy way to calculate the amount of the injection metering error. (AmerenIP Ex. 2.12 at 5-6)

~~He stated in part that "the metering error at Shanghai was not the cause of the temporary reduction in the peak day deliverability of the Shanghai Storage Field"; that "the cause of the injection metering error at Shanghai was completely different from the cause of the injection metering error at Hillsboro"; that at Shanghai "the error occurred because the incorrect K-factor constant was programmed for the gear ratio of the meter"; and that "at Hillsboro unlike Shanghai there was no easy way to calculate the amount of the injection metering error." (AmerenIP Ex. 2.12 at 5-6)~~

In its 7/29/10 reply, pages 13-15, **Staff** asserts that the records in the three PGA dockets are substantially similar with respect to this issue. Staff's position remained unchanged and Staff believes the same conclusions would be supported by the record in Docket No. 05-0743. (Staff 7/29/10 reply at 9-10)

Staff states that it "never disputed there were differences between the cases." (*Id.* at 9) In each proceeding, Mr. Lounsberry made the following statement:

There are factual differences between the adjustment advocated in regards to the Shanghai storage field in Docket No. 01-0701 and the adjustment offered in this docket. The context for the reductions of peak day capacity ratings of the two storage fields was different. For those reasons and given the additional detail discussed in the instant proceeding I consider it relevant information and an appropriate adjustment for this proceeding. (citations omitted)

Staff says it was not advocating that the deliverability problems at Hillsboro and Shanghai were identical. The Commission referenced and had available to it the 01-0701 Order that detailed the Shanghai reduction in deliverability issue when it issued the Docket No. 03-0699 Order. In Staff's view, "Since Staff never argued and the Commission never concluded that the deliverability problems at the two storage fields were identical, the additional evidence that IP provided in Docket No. 05-0743 does not affect Staff's argument or the Commission's ability to accept it." (Staff 7/29/10 reply at 14-15)

## **2. Reductions in Supervisory and Technical Personnel**

Staff states that the Company significantly reduced the number of storage field supervisors from three or four supervisors from 1991 through November of 1995 to two persons at the end of 1995 and finally dropping to one person at the beginning of 2000. (Staff IB at 30-31; Staff Ex. 2.00 at 47-48)

From 1995 through early 2000, Staff states, IP implemented a review of its storage field operations, and determined that its storage field operations could be conducted in a safe, reliable and efficient manner with one supervisor and by modifying the responsibilities of the operators and changing work practices. IP's decision to reduce storage staffing was not limited to the supervisory ranks. During the early 1990's, IP had three engineers and one geologist whose responsibility was the storage fields. (Staff Ex. 2.00 at 49) Shortly after the Hillsboro storage field expansion in 1993, the number of engineers dropped to two and then dropped to one in 1996, and the geologist retired in 2001.

Staff failed to see how any of the information provided by the Company supported the need to significantly reduce the number of supervisory and technical oversight personnel associated with the Company's storage field operations. (Staff IB at 32; Staff Ex. 4.00 at 32-33) Further, Staff opined that the Company's specific examples for retirements may indicate a reduction in workload, but any reductions would likely

have been minimal. (Staff 7/29/10 reply at 15-17) Finally, Staff indicated that it expected one of the functions of technical personnel was to ensure compliance with various applicable codes and that since the Company maintained propane facilities through 2000, that function remained, but most of the personnel reductions occurred much earlier.

Staff states that in Docket No. 04-0294, (merger of Ameren and IP, collectively “Applicants”), the issue of adequate oversight of gas storage fields was also raised. The Applicants’ testimony indicated that due to the concerns raised by Staff in Docket No. 01-0701 and in the merger proceeding, Ameren would, upon merger closing, establish a manager level position to lead its storage operation and would within six months of closing add additional engineering and supervisory personnel who will focus on storage activities and responsibilities. This testimony also indicated that these personnel would be in addition to the existing storage personnel from the combined companies. (Staff IB at 32-33; Staff 7/29/10 reply at 15-17, citing Staff Ex. 2.00 at 49-50)

Staff notes that in the current proceeding, IP indicated that the Applicants’ testimony from Docket No. 04-0294 did not specifically state any agreement or sharing of the Staff’s concerns related to the staffing of IP’s storage facilities. Instead, IP asserts, Ameren’s evaluation was based on the staffing of IP’s storage facilities in 2004 and of the management and staff needs for the entire Ameren storage field operation when IP’s storage operations were integrated with those of the existing Ameren companies. (Staff IB at 33)

Staff responded that of the 12 company-owned storage fields in Illinois, seven were IP fields. Staff also considers it significant that Ameren was adding a manager position as well as supervisory and engineering personnel to oversee these fields, in addition to what was on hand from the existing personnel. (Staff IB at 33; Staff 7/29/10 reply at 16-17, citing Staff Ex. 4.00 at 33-34) Staff views the recognition that additional supervisory and technical personnel were needed as corroboration of its position that the number of supervisory and technical personnel maintained by the Company was insufficient to operate its storage fields in a prudent fashion.

According to Staff, the facts “do not explain why the Company did not discover its problems at its various fields earlier or why the Company is the only Illinois utility experiencing these significant storage field operating problems.” (Staff 7/29/10 reply at 17, citing Staff Ex. 2.00 at 45-46) Staff emphasizes that the Company had just completed the expansion of the Hillsboro storage field in 1993, when it decided to reduce the number of supervisory and technical oversight over all of its storage fields while at the same time to adding more responsibility to the remaining storage supervisor. Staff contends that there is a correlation between the personnel reductions and the problems that the Company began to experience at its storage field and its inability to conduct thorough root cause analyses resulting in the Company’s decision to reduce the peak day capacity at two of its largest storage fields.

**IP** responded that that the total staffing at the storage fields over the period analyzed by Staff was reduced only from 19 to 17, that new foreman positions were

created, that throughout this period the Company continued to have a manager of the storage fields who was responsible for all the fields, and that the Company made use of external consultants and contractors where needed for special studies or projects. (IP IB at 57-59; IP RB at 31) IP further cited data to show that its storage field personnel have, collectively, over 240 years of storage field operating experience and that its storage fields have an excellent safety record, as evidenced by, among other things, the results of inspections conducted by the Commission's Office of Pipeline Safety. (IP IB at 59-60) IP further states that over the period cited by Staff, IP improved the efficiency of its storage fields through capital improvements projects, including improving the automation and control features, with upgraded control systems having been installed at all the storage fields from 1993 to 2004. IP states that the upgraded control systems make the storage plants more efficient operationally and improve IP's ability to monitor their operations, both on-site and from its central gas dispatch center; further the new, automated control and monitoring equipment provides the storage field technical staff with better remote monitoring capabilities and the ability to trouble-shoot any issues the storage fields or the controllers are having, without the necessity of being on-site at the particular storage field. Additionally, IP has adopted standardized operations software, which enables operators from one field to go to any other field and control it. IP states that, in general, new communications technologies such as cell phones and more sophisticated pagers have made it easier for personnel to monitor the operations of a storage field from a remote location rather than needing to have personnel physically present at each storage field a large part of the time. (IP IB at 60-61)

IP says considerable additional testimony was presented in Docket 05-0743 on the level of IP's supervisory and technical personnel and other operation and maintenance resources in its storage field operations over the time period in question. In its 7/8/10 response, pages 29-32, IP quotes portions of such testimony from IP witnesses Hood and Kemppainen, and IP witness Kevin Shipp who presented the results of this review.

Based on this analysis, IP asserts, "Messrs. Hood and Kemppainen testified in Docket 05-0743, in testimony that was not provided in Dockets 03-0699 and 04-0677, that 'the analysis of organizational records presented by Mr. Shipp shows that IP had sufficient management, technical and supervisory personnel involved in its storage field operations throughout the time period that is being discussed in this case.'" (IP 7/8/10 response at 32, citing AmerenIP Ex. 3.0 at 55)

Further, in "new" testimony in Docket 05-0743, IP witness Shipp described the gas facilities retirements that IP implemented from 1995 to 2001, which, IP states, reduced the scope of the facilities for which the IP storage fields technical staff was responsible. He also identified additional programmatic changes implemented by IP during this period that reduced the duties of the gas storage field supervisors and thus enabled IP to reduce the number of supervisors. (IP 7/8/10 response at 32-33)

IP also quotes new testimony from Mr. Shipp in Docket 05-0743 disputing Mr. Lounsberry's assertions that IP had significantly reduced the numbers of supervisors and technical personnel in its storage field operations. (IP RB at 32; IP 7/8/10 response at 35-36)

Q. At lines 695 – 696 [of his rebuttal testimony] Mr. Lounsberry states that the Company “significantly” reduced the number of supervisors and technical oversight of its storage fields, and that the factors you discussed in you [sic] rebuttal testimony did not support these reductions. Do you have any response to Mr. Lounsberry’s statements?

A. Yes. First, I do not agree that IP significantly reduced the supervisory and technical oversight of its storage field. At lines 324 through 398 of my rebuttal I described in great detail the management, supervisory and engineering/technical staffing with responsibilities for the storage fields from 1993 to 2003. I also pointed out at lines 310-315 that IP made extensive use of outside consultants and contractors for specific projects relating to the storage fields, and in particular would make use of outside consultants and contractors in connection with unusual problems or occurrences at the storage fields that required investigation and analysis. As shown in my rebuttal testimony, in 1991 the Company had 3 employees whose major job responsibility was the day-to-day supervision of the storage fields; in 2000 (and through the time of Ameren’s purchase of IP in 2004) the Company also had 3 individuals having varying levels of supervisory responsibilities. Mr. Lounsberry acknowledges that “Mr. Shipp’s testimony also details all of the personnel changes that had occurred in relation to the storage fields” (lines 681-682), but he does not respond to it and does not support his assertion that IP “significantly reduced” the supervisory and technical oversight of the storage fields.

Second, in my rebuttal testimony I detailed numerous facilities upgrades, efficiency gains, and facilities retirements, among other things, that reduced the workload for the storage field personnel and reduced the need for on-site operation and supervision (e.g., capital improvements that allow the storage fields to be monitored from an off-site location). Mr. Lounsberry does not dispute the facts I have supplied, but simply asserts that he “would expect the workload reduction was minimal” (lines 698-699). The only one of the many factors described in my rebuttal testimony that reduced the workload and streamlined the supervisory and oversight functions which Mr. Lounsberry specifically addresses in his rebuttal testimony is the retirement of the Gillespie Storage Field and the Freeburg Propane Plant in 2000 (lines 701-703); he states that “most of the personnel reductions appear to have occurred much earlier” (lines 705-707). However, as I pointed out at lines 442-456 of my rebuttal testimony, IP retired two propane plants in 1995 and one in 1998. It was in 1995 that IP adopted and began to implement the manpower plan based on the self-directed work team concept. Further, with regards to the technical support staff, in 1993 the Company had 4 technical support staff employees and maintained that level through approximately the end of

2001, after all of the facilities retirements and work load reductions I have previously outlined had taken place (and after the period in which Mr. Lounsberry contends IP should have discovered the cause of the Hillsboro deliverability decline). Additionally, Mr. Lounsberry states that he “would expect one of the functions of the technical personnel was to ensure compliance with all of the applicable codes, etc.” (lines 703-705). However, with the retirement of four propane plants, a storage field and other facilities over the period 1995-2000, the number of separate facilities for which compliance had to be monitored was being continuously reduced over that period.

In its filings, IP also quotes new testimony from Mr. Shipp disputing Staff witness Lounsberry’s contention that the IP gas storage field supervisor had also been assigned additional responsibilities outside the storage fields during the period in question. (IP RB at 32; IP 7/8/10 response at 33-34) According to IP, during the time period from the early 1990s through 2005, at no time did the storage field supervisor having direct responsibility for the daily operations and activities at the storage fields also have the responsibility to supervise the gas control/dispatch function of the Company. (IP RB at 32)

IP also quotes new testimony from AmerenIP witnesses Hood and Kemppainen responding to Staff witness Lounsberry’s assertion that IP had failed to accurately estimate the amount of the Hillsboro main plant injection metering over-registration in 2000 due to “lack of supervisory and technical personnel.” In their view, involvement of additional technical and supervisory personnel would not have produced more information. (IP 7/8/10 response at 34-35)

### **3. Capital Expenditures**

On this issue, the evidence in Dockets 05-0743 is essentially the same as in 03-0699 and 04-0677.

According to **Staff**, the Company’s capital expenditure budget for storage operations indicated a significant drop in the amount of money being allocated. The Staff witness testified that the capital expenditure amounts for storage projects for the years 2002 through 2004 combined were less than the amount that the Company spent in either 2000 or in 2001, and that the years 2002, 2003, and 2004 account for three of the four lowest capital expenditure levels for gas underground storage plant for the Company since 1995. (Staff IB at 34; Staff Ex. 2.00 at 50)

In Staff’s view, this information is indicative of the Company’s being reactive rather than proactive when determining when to make upgrades or other improvements at its storage fields. (Staff IB at 34; Staff 7/29/10 reply at 18) A potential reason for a utility to behave in this fashion, Staff argues, is that a utility will not earn a return on its investments for improvements or upgrades at its storage facilities until it requests and receives a natural gas rate increase from the Commission. In contrast, increased gas supply costs, unless deemed imprudently incurred, are automatically passed through to customers through the PGA. So, Staff reasons, the Company could attempt to increase

its gas operations profitability by reducing the amounts spent on its capital expenditures for its storage operations.

Staff asserts that this concern is also consistent with information Staff received from an outside resource in a “due diligence” report. (Staff IB at 35; Staff Ex. 2.00 at 51) According to Staff, even though IP’s witness indicated he was not aware of any requested storage capital project being turned down, an outside source indicated that storage projects were not being considered. Staff believes its position recognizes the distinction between never denying a project and never asking for approval of a project. Staff’s review led it to conclude it was not a coincidence that IP’s reduced capital expenditures levels occurred at same time as when the Company experienced problems at its two largest storage fields. (Staff 7/29/10 reply at 18)

In response, IP asserts that Staff has failed to identify any capital projects Staff believes the Company should have undertaken, but did not, either specifically related to the HSF deliverability decline or to other aspects of storage field operations. (IP IB at 64-68; IP RB at 35-36) IP also stated that the years for which Staff contended IP’s storage field capital expenditures were reduced, 2002 through 2004, were after 2000 which is when Staff contends IP should have determined the cause of the Hillsboro deliverability problem. IP argued that reduced capital expenditures in 2002-2004 cannot have been a cause for IP not determining in 2000 that the injection metering error was the cause of the Hillsboro deliverability issue. IP also pointed out that its storage field capital expenditures in 1997 through 2001, when IP was investigating the cause of the Hillsboro deliverability decline, were at levels Staff apparently considered acceptable. (IP IB at 67-68)

IP further states that it responded in each case by showing, among other things, that its year-to-year capital expenditures fluctuated based on whether or not a major capital project or projects were conducted in a particular year, and that capital expenditures were lower in 2002-2004 because a number of major capital improvements and upgrades had been completed at the storage fields over several preceding years. IP cites Mr. Shipp’s testimony, “During my tenure in the Gas Supply department at IP (August 2001 through October 2004) I was involved in four budgeting cycles and during that period the storage fields never had a requested project rejected by management due to capital budget limitations.” (IP 7/8/10 response at 38-39; AmerenIP Ex. 2.3 at 23-27; AmerenIP Ex. 2.7)

In IP’s view, the Commission should reject any contention that IP’s storage field capital expenditures in 2002-2004 are evidence that IP was imprudent in its management and investigation of the Hillsboro deliverability problem “because Docket 05-0743 is the third consecutive Gas Charge reconciliation case in which Staff witness Lounsberry responded to IP’s detailed evidence on this point by stating that he could not dispute IP’s testimony because he did not possess any detailed information concerning IP’s gas storage budgeting procedures.” (IP 7/8/10 response at 39)

IP believes Staff had ample opportunity over the course of these three cases to propound discovery to IP to obtain the information it needed to provide a substantive evidentiary response to IP’s evidence on this topic, but failed to do so. In IP’s view, “the

Commission should accept AmerenIP's evidence on this topic as persuasive (and substantively un rebutted), and reject Staff's position that IP's levels of storage field capital expenditures in 2002-2004 are evidence that IP was imprudent in its management and investigation of the Hillsboro Storage Field deliverability issues." (*Id.* at 39-40)

Further, IP argued that Staff focused solely on capital expenditures at the storage fields and failed to consider IP's operations and maintenance ("O&M") expenditures at the storage fields during the same period. IP stated that amounts spent on O&M, like capital expenditures, contribute to the ability of the storage fields to operate in a safe, efficient and reliable manner. IP also stated that many of the activities that would initially be undertaken to investigate a problem at a storage field, such as hiring a consultant to conduct a review or perform a study, would typically be expensed, not capitalized. IP stated that its storage field O&M expenditures in each of the years 2001 through 2004 were higher than in any of the preceding six years (1995-2000), and the annual storage field O&M expenditures in each year 1999-2004 were higher than in any year in the 1995-1998 period. IP stated that in the years in which the Staff witness contended IP should have determined the Hillsboro deliverability problem was due to an inventory/metering problem, not a reservoir/structural problem (1999-2001), IP had higher storage field O&M expenditures than in any of the three preceding years. Additionally, in the specific years Staff identified as having had lower capital expenditures (2002-2004), the storage field O&M expenditures were the second, third and fourth highest of the ten-year period. IP pointed out that the Staff witness was well aware of IP's storage field O&M spending history, yet expressed no criticism of IP's storage field O&M expenditure levels. (IP IB at 66)

IP argued that Staff's argument, that IP may have reduced its capital expenditures because capital expenditures can only be recovered as the result of a rate case proceeding, was disproved by IP's high and increasing levels of O&M expenditures over the period in question. IP stated that if, between rate cases, a utility spends more in O&M than was included in the revenue requirement in the last rate case, the utility can never recover from its customers the increased O&M costs it incurs during the period between rate cases. Nonetheless, IP pointed out, its storage field O&M expenditures generally increased over the 1995-2004 period, even though IP had no gas base rate increases during that period. (IP IB at 67; IP RB at 36)

In its reply brief, IP also responds to Staff's assertions, noted above, regarding information Staff received from an outside resource in a "due diligence" report prepared by Ameren Corporation during its negotiations to acquire Illinois Power, which Staff obtained in discovery in Docket 04-0294. AmerenIP witness Scott Glaeser, who was part of Ameren's acquisition team that was responsible for performing due diligence during Ameren's investigation and negotiations concerning the possible acquisition of Illinois Power, testified in Docket 05-0743 that the detailed integration activities that have occurred subsequent to Ameren's acquisition of IP on September 30, 2004, have uncovered no evidence that Illinois Power's capital spending at its storage fields has been inadequate. He testified that Ameren has found no evidence of needed capital projects that were rejected or deferred due to capital spending constraints, no evidence that capital projects were not implemented in a timely manner, and no need to make

substantial “catch-up” capital expenditures at the IP storage fields to address needs that were not met under previous ownerships. (IP RB at 35-~~3837~~)

IP also asserts that if Staff’s argument concerning IP’s storage field capital expenditures is rejected, such rejection would further undercut the Commission’s conclusion in its Docket 03-0699 Order, which it repeated in its Docket 04-0677 Order, that IP had repeatedly failed to properly operate and manage its gas storage fields in a prudent manner, and that there had been a “lack of oversight and attention that constitutes imprudent operation and management.” (IP 7/8/10 response at 39-40) According to IP, it also undercuts the support for the Commission’s conclusions in its Docket 03-0699 Order, which it adopted for purposes of its Docket 04-0677 Order. (*Id.*)

In response, **Staff** asserts, “IP’s arguments on this topic are not new and should not require any change to the Commission’s prior conclusion.” (Staff 7/29/10 reply at 18)

#### **4. Identification of Problems**

In Docket 05-0743, as in Dockets 03-0699 and 04-0677, Staff expressed concerns about the Company’s purported inability to identify and correct various problems associated with its storage fields, which, Staff contends, contributed significantly to the Company’s inability to adequately maintain its Hillsboro storage facility. (Staff IB at 36) Staff states that the following scenarios are representative of the Company’s inability to identify problems: (1) IP’s investigation into an incident on December 16, 2000, that completely shut down the storage field for a short time and further reduced its peak day capacity for about one month after the accident; and (2) IP’s ability to track its gas usage.

##### **a. Hillsboro Incident**

Staff states that on December 16, 2000, the Company was forced to shut down its Hillsboro storage field because a produced water tank at the field exploded, launched 275 feet, and landed on the field’s regulator building causing extensive damage. As a result of the explosion the Company hired Packer Engineering (“Packer”) to conduct an investigation into the incident to determine, if possible, the origin and cause of the explosion. Packer issued a report (“Packer Report”) on February 14, 2001, regarding its investigation. (Staff IB at 36; Staff Ex. 2.00 at 53-55)

Staff’s review of this event led to the conclusion by Staff that the Company failed to properly investigate the “root cause” of the problems it faced at the Hillsboro storage field. In particular, Staff stated that after the incident, it took five months of prompting by Staff for the Company to determine the produced water tank should have had sufficient relief capacity to vent pressurized gas once it entered the produced water tank from the separator. Staff concluded that the Company’s inability to make this basic discovery was a reflection of the poor management oversight by the Company over the safe, reliable, and efficient operation of its storage fields. (Staff IB at 37)

In other words, Staff submits, IP did not follow up with any review to determine what set of events allowed or caused the separator to release high pressure gas into

the produced water tank in the first place. Further, Staff stated, the last word on this incident from IP is that the contributing factors “are still being investigated.” Staff adds, “More than 5 years have passed, yet IP still has not established a position on what caused the over-pressurization.” (*Id.* at 38; Staff 7/29/10 reply at 19)

One of the purposes of the root cause analysis, Staff argues, is to enable the Company to avoid similar accidents in the future. IP has not completed the root cause analysis and as a result, Staff submits, there remains the possibility that the episode could be repeated. Staff considered this incident as illustrative of IP’s failure to conduct a root cause analysis during the same time period that it failed to recognize that the inventory shortfall was the primary problem at the Hillsboro storage field. (*Id.* at 38; Staff 7/29/10 reply at 19-20)

In its testimony, briefs and 7/8/10 response, IP disputes Staff’s position. IP states, in part, “Another prong of Staff’s argument in all three dockets, that IP was imprudent in its management and investigation of the Hillsboro deliverability issues was its contention that IP’s handling of a December 2000 incident at Hillsboro, involving a produced water tank that became over-pressurized, showed that IP did not conduct proper root cause analyses.” (IP 7/8/10 response at 40-41) The testimony on this topic focused on the sufficiency of IP’s corrective actions taken in response to the December 2000 incident. In Docket 05-0743, evidence was presented concerning IP’s response to and corrective actions for the December 2000 Hillsboro incident that was not presented in Docket 03-0699 or Docket 04-0677.

Specifically, IP asserts, IP witnesses Hood and Kempainen stated in Docket 05-0743 that the replacement water tank had not experienced an over-pressure condition after implementation of IP’s corrective actions to prevent re-occurrence of another over-pressurization situation, thereby further demonstrating the effectiveness and appropriateness of IP’s corrective actions for the December 2000 occurrence. (IP 7/8/10 response at 41; AmerenIP Ex. 3.0 at 54) The IP witnesses also summarized, in new testimony in Docket 05-0743, why Staff’s criticisms of IP’s handling and investigation of the December 2000 Hillsboro incident were unwarranted in their view. Among other things, they testified, “In the specific case of the December 2000 Hillsboro incident, IP hired a highly-qualified outside forensic engineering consulting firm to investigate the incident immediately after the occurrence; and IP implemented extensive corrective and preventative actions to keep such an incident from occurring again.” (IP 7/8/10 response at 41; AmerenIP Ex. 3.0 at 55)

They further testified that “IP looked at the entire produced water collection system which includes both plant separators, the 12 well head units, and the water flow path into the storage tank” and that “IP relied in large part on the investigation and recommendations of a qualified outside consultant, Packer Engineering, whose qualifications and expertise for this assignment have not been questioned.”(IP 7/8/10 reply at 41-42; AmerenIP Ex. 3.2 at 31-32) IP stated that its witnesses presented a detailed discussion of the corrective actions that IP had implemented in response to the December 2000 occurrence and showed that these corrective actions would prevent re-occurrence of the circumstances that the Staff witness believed to be the root cause of

the December 2000 occurrence. (IP IB at 69-70; IP RB at 39-40; IP 7/8/10 Response at 42-43)

IP also states, AmerenIP witnesses Hood and Kemppainen responded to Staff witness Lounsberry's testimony in Docket 05-0743 "in which Mr. Lounsberry, for the first time in the three dockets, questioned the coverage and sufficiency of the report prepared by the Commission's Office of Pipeline Safety ('OPS') on the December 2000 Hillsboro incident (in all three dockets, IP had pointed out that the OPS Report noted the root cause of the incident as determined by IP's forensic engineering consultant, Packer Engineering; did not question or criticize the adequacy or completeness of IP's investigation of the December 2000 incident; and did not criticize the adequacy or completeness of IP's corrective actions in response to the incident )...." (IP 7/8/10 response at 42)

The IP witnesses stated, in part, that "a review of the complete OPS Incident Report (AmerenIP Exhibit 3.1, provided with our rebuttal testimony) shows that the OPS fully took the produced water tank into account in its incident investigation and analysis." They added, "Finally, we reiterate, as we stated above, that IP's corrective actions fully address the possibility that the root cause of the Hillsboro incident was that bubbling of the high pressure gas up through the water in the tank caused splashing and foaming which caused ice to form on the cold interior walls of the tank and seal off the manway and the 6 inch vent, thereby leading to the overpressurization of the tank." (IP 7/8/10 response at 42-43, citing AmerenIP Ex. 3.2 at 32)

IP also stated that in Docket 05-0743, Mr. Lounsberry testified "for the first time" that "to the best of my knowledge, no one from Staff has criticized the Company's corrective actions that resulted from the Hillsboro Incident." (IP 7/8/10 response at 43, citing Staff Ex. 4.00 at 39) IP argued that although the Staff witness criticized the sufficiency of IP's root cause analysis of the December 2000 incident, the purpose of a root cause analysis is to identify corrective and preventative actions that can be taken to prevent the incident from occurring again. IP stated that the record shows it implemented numerous corrective and preventative actions following the December 2000 incident, based on its investigation, and the sufficiency and completeness of these actions has not been questioned. (IP IB at 70)

IP also argues that the additional evidence presented in Docket 05-0743 on IP's investigation of and corrective actions for the December 2000 Hillsboro incident further undercuts the support for the Commission's findings and conclusions in its Docket 03-0699 Order, which it repeated in its Docket 04-0677 Order, that IP had repeatedly failed to properly operate and manage its gas storage fields in a prudent manner. (IP 7/9/10 response at 43-44)

According to **Staff**, "Although IP presented some additional testimony on this issue in Docket 05-0743, Staff does not find the additional testimony or arguments persuasive and does not agree that a different Commission conclusion is warranted." (Staff 7/29/10 reply at 20) Other arguments in Staff's 7/29/10 reply on this issue are noted above.

**b. Gas Dispatch Tracking**

As in the prior dockets, Staff expressed a concern “with the fact that the Company’s storage fields mis-measured a significant amount of gas for an extended period of time, yet the Company’s dispatch facility failed to notice the variance.” (Staff IB at 38) The Company tracks the volume of gas received from the pipelines through its SCADA/EMS systems. The Company noted it tracks about 95-98% of the total gas it receives from the pipelines through this system.

Staff’s concern was that even through the Company experienced some significant measurement errors, which primarily occur during the injection months when gas usage is the lowest, its load forecasting and dispatch group failed to notice an extra Bcf, on average, of gas entering its system every year for six years. Staff regards this is another example of the Company’s failure to adequately oversee its operations. (Staff IB at 39)

The 4,000 Mcf/day error alleged by the Company is roughly equivalent to 40,000 therms/day, which, Staff asserts, means that the Company during the summer months was seeing a customer load forecasting error for its customers in excess of 13%. Staff expects a utility to be aware of errors of that magnitude regarding its forecasting and dispatch. (Staff IB at 39-40; Staff Ex. 2.00 at 65-66)

Further, Staff considers the Company’s example of the 4,000 Mcf/day value to be an understatement. Staff believes the average daily error on Hillsboro injection readings would exceed 8,000 Mcf/day reflecting a potential error in excess of 27%. (Staff IB at 40-41)

Staff also states that IP had the potential to back out of its daily deliveries everything except its sales customers usage, meaning IP then had the opportunity to observe, if it had been looking, a 27% error between its sales customer’s forecasted use and actual deliveries. (Staff IB at 41)

In response to this argument, **IP** states, in part, that the gas dispatchers cannot know the system usage on a daily basis because of the system supply (sales) customers, which comprise the vast majority of the end users on AmerenIP’s system, not the transportation customers, and if the Company removed the transportation volumes from its daily receipts, it still would not know the actual usage of its sales customers for each day. (IP RB at 43)

As explained in its filings, IP also disputes other elements of the Staff position. IP states that the annual and total estimated “measurement error” shown in Table 2 on page 39 of Staff’s initial brief, which Staff contends the Company should have noticed through its gas dispatch facility, is the same estimated injection meter over-registration and HSF inventory depletion that, in Docket 04-0476, Staff criticized as, and the Commission found to be, inaccurate and unreliable. In other words, IP contends that the Staff witness’s argument that IP failed to detect a significant amount of gas entering its system that was not measured due to a metering error, and Staff’s specific calculations of the amount of gas that IP “missed,” should be rejected because the Staff

argument is based on the estimate of the Hillsboro metering error IP developed in 2003 which Staff rejected as unreliable in Docket 04-0476 and continues to believe is inaccurate. (IP IB at 71-72; IP RB at 40)

IP also asserts that the use of the estimated amount of metering error for each year, and the contention that the Company should have been able to detect this amount of additional gas entering its distribution system, were entirely creations by the Staff witness. (IP RB at 41)

IP claims Staff's calculation of a 13% load forecasting error is inaccurate, in part because the total load on the Company's system was lower in 2003 than it was during the 1994-199 period. (*Id.*)

IP argues that Staff calculation of an error of 27% is even more flawed, in part because the Company's total system throughput in 1994 was almost 100,000,000 therms higher than it was in 2003. (IP RB at 42) In general, IP criticized the Staff witness's calculations of the additional gas entering IP's system and the load forecasting error that he contended IP should have detected, as being based on inappropriate comparisons including comparing data from different years, failing to consider both the transportation customer load and the system supply customer load, and having other data errors. (IP IB at 72-77; IP RB at 41-43) IP presented an exhibit showing the delivery data for each day of the injection seasons in 1994-1999, the average daily injection measurement error for each year, and the average daily measurement error as a percent of deliveries for each day. IP witness Shipp testified that on average, the daily measurement errors as a percent of pipeline deliveries were 3.4% in 1994, 2.5% in 1995, 2.4% in 1996, 2.1% in 1997, 2.5% in 1998 and 2.1% in 1999. Further, the highest percentage on any day in the six-year period was only 4.5%, and in no year after 1994 did the percentage on any day ever exceed 3.60%. (AmerenIP Ex. 2.12 at 15; AmerenIP Ex. 2.13)

IP also states that there was testimony presented in Docket 05-0743 that was not in the record in the previous two PGA cases, on the "Gas Dispatch Tracking" issue raised by Staff. (IP 7/8/10 response at 44-45) Specifically, IP quotes new testimony by IP witness Shipp in Docket 05-0743 disputing Staff witness Lounsberry's contention that IP should have been alerted to a metering problem on its system by a high annual Lost and Unaccounted for Gas Factor. (AmerenIP Ex. 2.12 at 17-18)

Mr. Shipp further stated, "In any event, as I explained in my previous answer, the Lost and Unaccounted for Factor during the period the metering errors at Hillsboro were occurring was impacted by the storage field injection and withdrawal data that turned out to be incorrect due to metering errors, but IP did not know at the time that the metering errors were occurring." (IP 7/8/10 response at 44-45; Docket 05-0743, AmerenIP Ex. 2.12 at 17-18)

In response, **Staff** asserts, "IP does not explain why this additional testimony was important." (Staff 7/29/10 reply at 20) Staff does not dispute IP's claim that additional testimony was provided on this issue, but does not see this additional information as constituting the basis for any alteration in the Commission's prior Orders.

### C. Other Issues

According to Staff, it is apparent that Ameren, prior to acquiring Illinois Power Company from Dynegy, was aware of the problems that the Company had experienced at its Hillsboro storage field, and was so concerned about the manner that the Company and Dynegy had operated the field that it included an indemnification clause in the February 2, 2004 Stock Purchase Agreement among Ameren Corporation, Illinova Generation, Illinova Generating Company and Dynegy Inc. Specifically, under Article IX INDEMNIFICATION, Section 9.1 (g), page 79, the document states, in part, the following:

any net refund of amounts under IPC's purchased gas adjustment ("PGA") rider ordered by the ICC, whether effected by adjustment of any PGA factor or otherwise, in any PGA reconciliation proceeding relating to any portion of the period from January 1, 2001 to December 31, 2004, to the extent that payments or PGA adjustments required to be made by IPC pursuant to such order exceed the reserve established for potential liability in such proceeding as reflected in the calculation of the Final Adjusted Working Capital; or any disallowance by the ICC of IPC's gas costs or investment relating to events prior to the Closing at the Hillsboro gas storage field whether such disallowance shall be provided for in any PGA case ("working gas") or in a gas rate case ("cushion gas"), but only to the extent that such disallowance is not due to any imprudence by IPC after the Closing; provided, however, that the Seller Indemnitors' liability under this Section 9.1(g) with respect to any such refund or disallowance shall be equal to 50% of such refund or disallowance.  
(Staff IB at 41-42; Staff Ex. 2.00, pp. 68-69)

Staff's understanding is that under the indemnification clause, if the Commission determines that the Company's actions or lack thereof regarding its Hillsboro storage field were not prudent through the end of calendar year 2004 (assuming the Company took or failed to take those actions prior to the closing of the Acquisition by Ameren), then IP is only responsible for paying half of the prudence disallowance with the other half being paid by Dynegy. (Staff IB at 42)

IP disagrees with the Staff assessment. (IP RB at 44) IP witness Scot Glaeser stated that in light of the limitations inherent in the "due diligence" process, as well as the uncertainties associated with the outcome of litigation pending at the time of an acquisition, indemnification provisions in acquisition agreements are commonly used as a way for the parties to share or allocate the risks associated with such uncertainties. (Ameren IP Ex. 4.0 at 11) He also stated that the full indemnification provision was over seven pages long plus attachments, one of which was a 40 page list of potential litigation exposures. The indemnification covered all aspects of Illinois Power's utility business including environmental issues, tax issues, outstanding lawsuits, and warranties and representation by the seller. Thus, IP argues, there was nothing unique about inclusion of potential PGA refunds in open reconciliation cases in the indemnification provision.

Specifically with respect to PGA reconciliation cases, IP asserts, Ameren did not believe it should bear 100% of the risk of possible disallowances in open reconciliation cases relating to prior periods when Illinois Power was not under Ameren's control, but was "sufficiently unconcerned" about the risks associated with open PGA cases, and the Hillsboro Field in particular, that it was willing to accept a 50-50 sharing of those risks rather than insisting Dynegy bear 100% of the risks. (IP RB at 44-45)

## **V. COMMISSION ANALYSIS AND CONCLUSIONS**

As described above, there was a significant gas measurement error at IP's Hillsboro Storage Field during the period of November 1993 through October 1999, resulting in a large shortfall of gas inventory at the Hillsboro field. IP began replacing the inventory in 2003. According to Staff, if the Company had begun replacing the inventory shortfall in 2000 instead of 2003, it would have been fully replaced in 2004; thus, there would have been substantially more inventory volumes available for withdrawal for ratepayer use during the 2005 winter season. The unit cost of the gas IP purchased in 2005 to make up for this reduced seasonal withdrawal capacity was more expensive than the inventory replacement gas would have been, causing the Company to incur additional gas costs of \$631,515 during the reconciliation period. In Staff's view, this amount was imprudently incurred, and should not be charged to ratepayers.

Staff states that its proposed adjustment and the position on which it is based are nearly identical to the Staff positions which were adopted by the Commission in the Company's PGA reconciliations in Docket Nos. 03-0699 and 04-0677. In those cases, the amounts by which the cost of gas purchased in 2003 and 2004 exceeded what they would have been had IP begun replacing inventory in the 2000 injection season were found to be imprudently incurred. As noted above, the Commission's orders in those two dockets were affirmed by the Appellate Court.

In Docket 03-0699, based on its review of the record, the Commission concluded on page 35 that "the record establishes that IP did not act prudently in connection with the investigation, identification and remediation of the declines in the deliverability of the Hillsboro Storage Field." More specifically, the Commission concluded that "the Company was imprudent in its operation of the Hillsboro storage field in that it: 1) failed to conduct a thorough study of the injection error at the time it was identified; 2) failed to conduct any inspections to assure that the orifice meters were working properly; 3) failed to begin returning the inventory to the field when the working gas volumes fell below the pre-expansion volume of 3.1 Bcf after the 1999-2000 winter season."

On page 37 of its Order in Docket 03-0699, the Commission further concluded:

In summary, the Commission concludes that all things considered, AmerenIP acted imprudently in its response to the deliverability problems at the Hillsboro Storage Field and agrees with Staff that the Company should have begun replacement of the HSF inventory in 2000. AmerenIP's repeated failures to properly operate and manage its natural gas storage fields in a prudent manner has resulted in cost increases that

the Commission can no longer allow to be passed on to captive customers. While human error is inevitable, AmerenIP's repeated failures have risen to the level of imprudence. In the Commission's view, repeated human error demonstrates a lack of oversight and attention that constitutes imprudent operation and management of the Hillsboro Storage Field.

11: In its Order in Docket 04-0677, the Commission concluded, in part, on pages 10-

While IP continues to argue that it acted prudently, the Commission has already ruled on this issue. The only open question in this proceeding is whether IP's imprudent action resulted in increased costs that were improperly passed along to its customers. Staff has presented two calculations; one assuming IP started replacing the HSF inventory in 2000 and the other assuming IP started replacing the HSF inventory in 2001. As the quotation of the Order [in Docket 03-0699, page 37] above shows, the Commission already found that IP should have started replacing the HSF inventory in 2000.

The Commission's Orders in Dockets 03-0699 and 04-0677 were affirmed on appeal. Among other things, the Appellate Court "disagree[d] with Illinois Power's assertion that it would have been imprudent to reinject the field with natural gas inventory in 2000 when working gas volumes fell below pre-expansion levels." 382 Ill.App.3d 202-203. The Court further stated:

Thus, the Commission position that Illinois Power should have attempted to reinject the field in 2000 to test the metering corrections is not unreasonable. By waiting three more years before even attempting to begin replacement efforts, Illinois Power unnecessarily depleted the base gas volumes of the reservoir and exponentially increased the cost of injection. Based on the entire record in both proceedings, a conclusion that Illinois Power was prudent is not clearly evident. *Id.* at 203.

In its conclusion, the Court affirmed the Commission finding that Illinois Power's decision to forego reinjecting the Hillsboro storage field until 2003 was imprudent. The Court held that "the Commission orders in case No. 03-699 and case No. 04-677 are therefore affirmed." *Id.* at 205.

As noted, Staff asserts that its proposed adjustment and the position on which it is based are nearly identical to the Staff positions which were adopted by the Commission in the Company's PGA reconciliations in Docket Nos. 03-0699 and 04-0677.

In its initial brief in Docket 05-0743, pages 77-78, Illinois Power states, in part:

The record in this case is similar to (but not identical to) the record in Docket 03-0699. AmerenIP respectfully disagrees with the findings and

conclusions in the Order in Docket 03-0699 to the extent the Commission adopted Staff's arguments and found the Company acted imprudently with respect to Hillsboro. AmerenIP has appealed the Commission's findings and conclusions in Docket 03-0699 to the Illinois Appellate Court. [citation omitted] Briefing on the appeal is in progress. In its evidence in the instant docket and in this brief, AmerenIP has made the same or similar arguments in opposition to the Staff recommendation as it made in Docket 03-0699 and is making in the Appellate Court proceeding.

In its Response filed July 8, 2010, however, IP argues that "key points relied on by the Appellate Court in affirming the Commission's Orders in Dockets 03-0699 and 04-0677 are not supported by the record in Docket 05-0743", and that "[t]here is significant additional and different evidence in the record of Docket 05-0743 that is material to the principal issues in the case and supports a different conclusion than that reached in Dockets 03-0699 and 04-0677." In the preceding sections of this Order, the additional and different evidence in Docket 05-0743 cited by IP has been discussed in detail. IP also argues that "in reaching its decision in this Docket, the Commission is not bound by its Orders in Dockets 03-0699 and 04-0677 or the Appellate Court Decision in those cases, but rather must reach its decision based on the record in this Docket." (IP 7/8/10 response at Sections II, III, IV)

According to Staff, "Despite IP's arduous attempts to distinguish the records, 'it remains clear that the adjustments proposed by Staff in the 2005 PGA case are based upon the same actions by IP over the same general time period'", and reflect the adverse effects of such actions or inactions on PGA costs in 2005. (Staff initial brief at 44; Staff 7/29/10 reply at 3)

The Commission recognizes that it is required to base its decision on the record compiled in this case, and that its prior orders are not *res judicata*, even though the prior cases involved the same or a similar situation to that presented in the instant case. As the preceding sections of this Order show, there is considerable additional and different evidence in the record of this docket that was not present in the records of Dockets 03-0699 and 04-0677, which the Commission must take into account in reaching its decision in the present case. The Commission also notes that although the Appellate Court affirmed the Commission's conclusions in Dockets 03-0699 and 04-0677, that affirmance was based on application of the limited and highly deferential standard of judicial review of administrative agency orders, and does not preclude the Commission from reaching a different conclusion in Docket 05-0743 if the Commission concludes a different conclusion is warranted based on the record before it.

Based on its review of the record in this Docket, the Commission concludes that the record establishes the prudence of IP's actions in connection with the investigation, identification and remediation of the declines in the deliverability of the Hillsboro Storage Field that resulted from the depletion of the storage field inventory which in turn was caused by the turbine injection metering error. The record demonstrates that IP acted aggressively and proactively, and expended considerable internal and external resources, in attempting to identify, and ultimately identifying and resolving, the causes of the deliverability decline. Based on the record in this docket, the Commission

concludes IP's actions and decisions met the standard of prudence that the Commission has adopted. IP focused its initial investigation of the deliverability decline on possible structural causes, which was reasonable based on industry experience, the fact that the Hillsboro reservoir had recently undergone a significant expansion, and the indications from the initial analyses that were performed. While the record indicates that IP focused its investigation on possible structural or geologic causes of the deliverability decline and was cautious in not resuming injections of gas inventory into Hillsboro until it had reasonably investigated and eliminated the plausible structural causes, these approaches were appropriate in light of the information that was reasonably available to IP management at the various points in time throughout the investigation detailed in this record. The Commission cannot conclude that IP was imprudent because it did not begin reinjecting substantial quantities of gas inventory into Hillsboro in 2000, 2001 or even 2002 while there were still reasonable possibilities that structural conditions existed that could result in the newly-injected gas migrating to inaccessible locations and being lost.

The Commission also cannot conclude that the three specific Hillsboro-related items cited by Staff warrant a finding of imprudence. IP adequately explained that the estimate it made in 1999-2000 of the extent of the injection metering error, albeit erroneous, was based on the best information reasonably available to IP at the time. The Commission does not agree with Staff that IP was imprudent because it did not recognize until a later date that well chart data from the individual I/W wells could be used to estimate the extent of the turbine injection metering error. The Commission would find it particularly difficult to find IP was imprudent for not using the well chart data in 1999-2000 in light of the evidence in the record that in Docket 04-0476, Staff testified that the I/W well charts were incomplete, inaccurate and not reliable, and criticized the well chart method as not being a reliable methodology for estimating the amount of the injection metering error and resulting inventory depletion. Additionally, the Commission observes that looking at the correction factors IP calculated in 2003 for four years using the well chart data, the average for the four years is much lower than the overall estimated amount of the well chart metering error and inventory depletion. Based on the record, the Commission cannot conclude that IP was imprudent for not using the I/W well chart data in 1999-2000, nor that if IP had used the well chart data at an earlier date, it should have concluded that the sole source of the Hillsboro deliverability issues was the injection metering error. Staff's argument on this point is too speculative to form the basis for a finding of imprudence.

With respect to the Hillsboro orifice withdrawal metering issues raised by Staff, the Commission notes that the regulations and other documents cited by Staff concerning meter inspection practices are not specifically applicable to the storage field withdrawal metering, and concludes that prudence did not require IP to expend resources to implement and apply standards and practices that were not applicable to the metering in question. The Commission also finds the record shows that IP failed to recognize the true extent of the turbine injection metering error sooner due to its inaccurate estimate of the injection metering error, and that even if IP had followed the inspection practices for the orifice withdrawal meters that Staff cited, it would not have led to earlier discovery of the true size of the injection metering error, which was ultimately determined to be the cause of the Hillsboro deliverability shortfall. Finally, based on the

record, IP adequately explained why the other indicators of a possible “inventory problem” cited by Staff did not provide sufficient basis for IP to rule out remaining structural causes and to commence reinjecting substantial amounts of gas inventory into the storage field until IP had completed its investigations of possible reservoir or structural causes in 2003.

While there is little or no dispute in this case between IP and Staff concerning the underlying facts relating to the Hillsboro deliverability decline and IP’s investigation of it, there is considerable dispute between the parties as to the inferences and conclusions that IP should have drawn from the available information at various points in time. IP believes the actions it took and decisions it made at the various points in time were reasonable, while Staff is of the opinion that IP should have taken other or different actions. The Commission and the courts have recognized in the past that differences in opinion do not amount to imprudence. Here, the Commission must recognize that the decisions IP made and the actions it took were based on the information it had at each point in time, while Staff’s opinions of what IP should have done are necessarily informed by hindsight, including the knowledge that in fact there were no significant structural or geologic problems with the reservoir that were causing loss of inventory.

The Commission is not persuaded that any of Staff’s “overall storage concerns” amount to or should contribute to a finding that AmerenIP was imprudent. The Commission fully addressed the previous reduction in the peak day capacity of the Shanghai Field in Docket 01-0701, based on a full record, and found that the Company had acted prudently. Further, the detailed additional evidence presented in this docket concerning the cause of the Shanghai peak capacity reduction makes it clear that the causes of the Shanghai and the Hillsboro capacity reductions were unrelated and that the Shanghai issues were not a precursor of the Hillsboro issues, nor should they have led IP to determine the cause of the Hillsboro deliverability issue at an earlier date. The Commission sees no reason to conclude that IP acted imprudently simply because the peak capacities of these storage fields were both temporarily reduced, without analysis of the underlying causes, which, based on this record, appears to be all that Staff’s argument amounts to.

With respect to Staff’s concerns about storage field manpower, the record in this docket, including the detailed historical review of the employment and organizational records for the storage fields presented by IP for the first time in the current docket, shows that overall manpower and resource levels which IP directed towards storage field operations remained at reasonable levels and that the reorganization of IP’s storage field work force was based on a well-structured and thought-out plan designed to enable IP to continue to provide safe, reliable and efficient service. The record also shows that throughout the period in question, IP also had adequate technical and engineering resources on its staff and also made extensive use of outside consultants and contractors to address particular storage field issues. Further, IP identified numerous other factors, including capital improvements to install more automation and control systems, facilities retirements, and other technological advances, over the period in question that made it possible to operate and monitor the storage fields efficiently with the same or even reduced manpower.

With respect to Staff's concerns about storage field capital expenditures, the Commission sees no evidence to suggest that IP has failed to make, or delayed in making, necessary and appropriate replacements and upgrades to storage field facilities. Although Staff raised questions based on variations in year-to-year capital expenditure totals, IP responded appropriately by detailing all of the capital projects it implemented over the 1995-2004 period and explaining capital project initiatives it has implemented to improve the reliability and efficiency of service, such as replacing and upgrading control systems at all storage fields. Staff did not identify any capital projects it believes that IP should have implemented but did not, whether for budgetary or any other reasons. Moreover, IP's storage field O&M expenditures have generally increased over the period in question. Further, Staff did not identify any connection between IP's storage field supervisory and technical manpower levels and its annual capital budgets, on the one hand, and the Hillsboro deliverability decline or the level of effort and attention IP devoted to investigating and attempting to solve this problem. The record in this docket shows that IP devoted significant attention and resources over an extended period to investigating and attempting to remediate the Hillsboro deliverability issues.

Finally, the two circumstances cited by Staff with respect to root cause analysis and "identification of problems" do not support Staff's recommendation for an imprudence disallowance in this case. In particular, the Commission notes that in the case of the December 2000 Hillsboro accident, IP promptly retained qualified outside assistance to investigate the cause of the action and to make recommendations; and that IP implemented an extensive list of corrective actions, which Staff has not identified any inadequacies in or otherwise questioned. In this docket, IP discussed in detail the corrective actions it implemented and demonstrated that these actions will both prevent re-occurrence of the December 2000 incident, and prevent re-occurrence of the underlying conditions that the Staff witness contended were the root cause of the December 2000 incident.

~~Having reviewed the record in the instant case, as well as the findings in the Commission Orders in Dockets 03-0699 and 04-0677 and the decision of the Appellate Court affirming those orders, the Commission again finds that IP did not act prudently in connection with the investigation, identification and remediation of the declines in the deliverability of the Hillsboro Storage Field. The Commission again concludes, as it did in Docket 03-0699, that IP failed to conduct a thorough study of the injection error at the time it was identified and also failed to conduct inspections to assure that the orifice meters were working properly. The Commission also finds that the overall storage concerns identified by Staff indicate that IP's actions or lack thereof contributed to the problems experienced at the Hillsboro field.~~

~~In conclusion, the Commission agrees with Staff that IP acted imprudently in its response to the deliverability problems at the Hillsboro Storage Field and should have begun replacement of the Hillsboro inventory in 2000 rather than waiting until 2003. As indicated by Staff, the gas IP purchased in 2005 to make up for this reduced seasonal withdrawal capacity was more expensive than the inventory replacement gas would have been, causing the Company to incur additional gas costs of \$631,515 during the~~

~~reconciliation period. As such, this amount was imprudently incurred, and should not be charged to ratepayers.~~

~~As noted above, IP also argues that in reaching its decision in this Docket, the Commission is not bound by its Orders in Dockets 03-0699 and 04-0677 or the Appellate Court decision in those cases, but rather must reach its decision based on the record in this Docket. On this point, the Commission agrees with Staff that while the Commission may not be bound by its prior orders, it is not required to disregard or ignore its orders in prior proceedings and the Court's affirmation of them. In fact, in its Order in Docket 04-0699, which was affirmed on appeal, the Commission found, "While IP continues to argue that it acted prudently, the Commission has already ruled on this issue."~~

~~Moreover, the three PGA dockets involve more than just a similar issue or situation. Rather, the underlying question in all three dockets is the same, namely whether IP should have begun replacement of the Hillsboro inventory in 2000 rather than waiting until 2003. The dollar impact of that decision by IP, on the other hand, does vary from one reconciliation year to the next, and calculations specific to each year were provided in each docket.~~

As indicated above, IP has argued~~also argues~~ that "[t]here is significant additional and different evidence in the record of Docket 05-0743 that is material to the principal issues in the case and supports a different conclusion than that reached in Dockets 03-0699 and 04-0677." (IP 7/8/10 response, Sec. IV) The Commission observes that IP has thoroughly identified and discussed the items of evidence to which it refers.

According to Staff, the differences in the record cited by IP are minor, and IP has not demonstrated that the basis for Staff's recommended adjustment in this proceeding is any different than the basis for its adjustments in the 2003 or 2004 proceedings. Also, as noted by Staff, some of the "new" evidence cited by IP was actually in the record that was before the Appellate Court, and some of IP's arguments regarding new evidence are essentially criticisms of the Appellate Court's findings on "key points." Staff concludes, "Neither has IP identified any new evidence that it produced in this proceeding which result in a meaningfully different record so as to produce a different conclusion regarding the operation of the Hillsboro Storage Field." (Staff 7/29/10 reply at 4-5)

In its review of the record, the Commission has duly considered the "additional and different evidence" cited by IP. In the Commission's view, this evidence helps to does not support a different outcome in this docket than is reflected ~~in the ultimate conclusions contained above and~~ in the Orders in Dockets 03-0699 and 04-0677, where the Commission agreed with Staff that IP acted imprudently in its response to the deliverability problems at the Hillsboro Storage Field and should have begun replacement of the Hillsboro inventory in 2000 rather than waiting until 2003. The adjustment of \$631,515 as proposed by Staff should be adopted. However, the Commission emphasizes that the conclusion it has reached in this docket is based on the Commission's review and analysis of the record compiled in this docket in its

entirety. In Dockets 03-0699 and 04-0677, the Commission concluded, based on its review of the records in those cases, that IP had failed to meet its burden of proof under Section 9-220 to show that it was prudent and that all of its gas costs incurred in 2003 and 2004, respectively, had been prudently incurred. In the instant docket, the Commission concludes, based on the entire record, that IP has met its burden of proof to show that it acted prudently with respect to the events and circumstances questioned by Staff.

## VI. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record, is of the opinion and finds that:

- (1) IP is a corporation engaged, among other things, in the distribution of natural gas to the public in portions of the State of Illinois and is a public utility within the meaning of the Public Utilities Act;
- (2) the Commission has jurisdiction over IP and the subject matter of this proceeding;
- (3) the statements of fact set forth in the prefatory portion of this Order are supported by the record and are hereby adopted as findings of fact, and the conclusions contained in prefatory portion of this Order are supported by the record and are hereby adopted;
- (4) the evidence shows that for the calendar year 2005 reconciliation period, IP acted reasonably and prudently in its purchases of natural gas~~purchased gas costs in the amount of \$631,515 were not prudently incurred~~ as explained in the prefatory portion of this Order above;
- (5) the reconciliation of the revenues collected by IP under its PGA for calendar year 2005 with the actual costs prudently incurred for the purchase of gas supply, as presented in AmerenIP Exhibit 1.6~~shown in Appendix A of Staff's initial brief~~ and in the Appendix to this Order, should be approved [note: AmerenIP Ex. 1.6, page 1 should be used for the Appendix to the Order];
- ~~(6) IP should implement Factor O refunds of \$631,515 as shown on Appendix A of Staff's initial brief and in the Appendix to this Order, in the first monthly PGA filing after the entry of the Order in this proceeding.~~

IT IS THEREFORE ORDERED that the reconciliation of the revenues collected by Illinois Power Company under its PGA for calendar year 2005 with the actual costs prudently incurred for the purchase of gas supply, as determined above and as shown in AmerenIP Exhibit 1.6~~Appendix A of Staff's initial brief~~ and in the Appendix to this Order, is approved.

~~IT IS FURTHER ORDERED that Illinois Power Company shall implement Factor O refunds of \$631,515, as described above, in its first monthly PGA filing following the date of this Order.~~

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

~~By proposed order of the Administrative Law Judge this 18th day of April, 2011.~~

~~Administrative Law Judge~~