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 IDAHO PUBLIC  
 UTILITIES COMMISSION

Attorneys for Avimor, LLC

**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION OF	)	Case No. IPC-E-06-23
IDAHO POWER COMPANY FOR APPROVAL OF	)	
AN AGREEMENT BETWEEN AVIMOR, LLC	)	
AND IDAHO POWER TO PROVIDE ELECTRIC	)	REPLY COMMENTS OF
TRANSMISSION AND SUBSTATION	)	AVIMOR, LLC
FACILITIES TO THE AVIMOR MULTI-USE	)	
DEVELOPMENT	)	
_____	)	

COMES NOW Avimor, LLC, an Idaho limited liability company, by and through its attorneys of record, Batt & Fisher, LLP, pursuant to Commission Order No. 30270, and files its Reply Comments in response to the Idaho Public Utilities Commission Staff's ("Staff") written comments filed on December 15, 2006.

**Introduction**

On August 17, 2006, Idaho Power Company ("IPCo" or the "Utility") and Avimor, LLC ("Avimor" or the "Company") entered into an agreement whereby the Utility would provide electric transmission and substation facilities (the "Agreement") to the Avimor multi-use development (the "Project") in exchange for the Company's

payment of the costs of design and construction of the same with the opportunity to be refunded these expenses at a later date.

In its Comments, Staff asserted that amendments to the Agreement were needed to protect IPCo and ratepayers from the “speculative” nature of the Project and from the “substantial and unnecessary upward pressure on rates” it would cause if approved as submitted. *Staff Comments* at pp. 2 & 5.

In its Reply Comments, Avimor proposes an alternative to the Agreement and Staff’s recommendations. Avimor’s proposal (the “Proposal”) still requires the Company to pay IPCo for the design and construction costs for utility infrastructure (the “Facilities”) with the opportunity to receive refunds of the payments based on the amount of customer connections and/or metered demand that results from the Project. A requirement Staff claims insulates IPCo from risk and caps any upward pressure on rates. Avimor’s Proposal also addresses the concerns raised in Staff’s Comments through: 1) a refund mechanism that will reduce IPCo’s potential per customer investment by roughly thirty-eight percent (38%); 2) increasing the number of customer connections or metered demand required for Avimor to receive a full refund of the payment(s) it makes to IPCo; 3) elimination of the lump sum payment provision contained in the Agreement in Section 4.2(b) at page 7, paragraph 3; and 4) accepting a refund period of 20 years.

Avimor also requests that the Commission approve two other amendments to the Agreement. The first is to authorize IPCo to require any other non-Avimor connections to the Facilities to pay a lump sum to the Utility, prior to the connection, based on the estimated amount of customer hook-ups or metered demand, which payment would then be passed through to Avimor. The second is to allow interest to accrue on the \$4,300,000

in refundable payments that the Company could receive if it were able to connect 1,103 customers or 11,030 kW of metered demand to the Facilities within 20 years.

Based on the foregoing and the discussion below, Avimor asserts that its Proposal is just and reasonable and should be approved and incorporated into the Agreement for the following reasons: 1) the minimal impact it will have on customer rates; 2) recognition of the risks taken on by Avimor and the benefits they provide to IPCo and its customers; 3) the Commission's treatment of a previous special agreement; and 4) the conservation/energy efficiency features of the Project that will be beneficial to Avimor homeowners and businesses, IPCo and the general body of ratepayers.

### **Legal Framework**

The Commission exercises limited jurisdiction and has no authority other than that expressly granted to it by the legislature. *Washington Water Power Co., v. Kootenai Environmental Alliance*, 99 Idaho 875, 591 P.2d 122 (1979). As a result, nothing is presumed in favor of its jurisdiction. *United States v. Utah Power & Light Co.*, 98 Idaho 665, 570 P.2d 1353 (1977). If the provisions of the statutes pertaining to the Commission are not met and compliance is not had with them, no jurisdiction exists. *Washington Water Power*, 99 Idaho at 879, 591 P.2d at 126.

The Commission has jurisdiction over utility rate-making matters. *Idaho Code* § 61-502 *et seq.* However, in exercising authority over rates, the Commission is forbidden to allow preferential treatment, advantage, prejudice or disadvantage between ratepayers. *Idaho Code* § 61-315; *Idaho State Homebuilders v. Washington Water Power Co.*, 107 Idaho 415, 690 P.2d 350 (1984); *Building Contractors Assn. of Southwestern Idaho, Inc., v. Idaho Public Utilities Commission*, 128 Idaho 534, 916 P.2d 1259 (1996).

## Procedural Background and Facts

### Avimor, LLC

Initially Avimor's Project will be an 830 acre, 685 residential unit community (+/- 10% based on actual development applications) with 75,000 square feet of commercial and retail space.<sup>1</sup> In approving the Project, the Ada County Board of Commissioners ("Commissioners") found that:

[T]he tax base anticipated at build-out is expected to cover the costs of essential public services and government functions needed to support the project.

*Board of Ada County Commissioners, Findings of Fact, Conclusions of Law and Order, 05-001-PC Report 5, at p. 10.* The Commissioner's also found:

[T]he proposal sets forth sufficient and adequate mitigation for the identified economic impacts beyond normally expected incremental impacts on municipalities and other agencies and districts. . . . [T]he proposed zoning ordinance text amendment will not result in an adverse impact on the delivery of services because all potential economic impacts have been identified and mitigated[.] . . . Therefore, in the overall scheme of things, any potential impacts the Avimor development may have would be miniscule when compared to the publicly funded impacts and sprawl development currently taking place in the City of Eagle and Boise City areas of City Impact.

*Id.* at p. 23 & 25 (emphasis added).

Consistent with mitigating economic impacts, Avimor's Project has been designed to conserve energy and water for the benefit of its residents, the Utility and the general body of ratepayers. Central to this is that at least 585 all residential units within the Project to be built by Avimor will meet or exceed Northwest Energy Star Standards, that is, they will be 30% more energy efficient than residential construction built to state

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<sup>1</sup> 498 acres of the Project will be devoted to open space.

code standards. Avimor will also strongly encourage other builders working in the Project to build residential units that meet Northwest Energy Star Standards.

In addition, although not directly related to energy conservation, Avimor's Project will have a state of the art wastewater treatment plant that will convert 300,000 gallons of wastewater daily into water clean enough for reuse.<sup>2</sup> The treated wastewater will be used to irrigate play fields, parks and other common areas in the Project, a practice that will both conserve valuable drinking water and reduce water costs for Avimor homeowners and businesses.

#### The Application and Agreement

On September 27, 2006, IPCo filed an Application requesting Commission approval of its Agreement with Avimor. The facilities proposed to be built pursuant to the Agreement are: 1) 3.4 miles of 138 kV transmission line, and 2) a substation with initial capacity of 10 MVA (collectively the "Facilities").

The Agreement requires Avimor to advance the cost for the design and construction of the Facilities to IPCo in three installments totaling \$4,300,000. The Company made the first installment of \$2,150,000 to IPCo on or about June 23, 2006 and is ready to make the second installment of \$1,075,000 to IPCo when construction of the Facilities begins. Finally, within 10 calendar days of written certification from IPCo that construction of the Facilities is completed, Avimor will pay the final installment of \$1,075,000 to the Utility.

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<sup>2</sup> This facility can be expanded to convert 1,000,000 gallons of wastewater daily into usable effluent. SunCor Development Company ("SunCor"), the parent of Avimor, has used water conservation features in other developments. Its master-planned community in New Mexico, Rancho Viejo, was the first in that state to reuse effluent for irrigating common areas. SunCor is also working with New Mexico on an aquifer recharge pilot program, from which that state will develop new regulations. In Utah, SunCor's Coral Canyon development was awarded Envision Utah's Governor's Merit Award in 2002, in part because of its water conservation program.

Provided Avimor makes the installment payments and performs its other obligations under the Agreement, the Company would be eligible to receive refunds from IPCo at a rate of \$4,300 per permanent residential connection, or \$430 per kilowatt (“kW”) for non-residential loads based on the kva rating of the distribution transformers serving each non-residential account. If within 10 years Avimor were to connect: 685 permanent residential service connections, or 6,850 kW of metered demand, whichever occurs first, IPCo would refund the remaining refundable balance of installment payments.<sup>3</sup> If at the end of the 10 year period the metered demand is less than 6,850 kW, or fewer than 685 permanent residential electrical services have connected to the Facilities, Avimor would forfeit any remaining balance of the payments to IPCo. Such forfeited amounts would never be included in the Utility’s rates.

Staff Comments

In its Comments, Staff agreed that Avimor should advance the cost for the design and construction of the Facilities. As stated previously, Staff believed this would protect IPCo and its ratepayers. *Comments* at p. 2. However, Staff alleged the per customer investment for building and connecting customers to the Facilities was too high as compared to similar costs currently in IPCo rates. Thus, Staff contends if the Agreement were approved, as is, it would cause substantial upward pressure on rates for all of IPCo’s customers. *Id.* at p. 5.

To address its concerns, Staff recommended that the Agreement’s refund provisions be amended to require Avimor to connect 4,300 customers to the Facilities before it could receive a full refund of the \$4,300,000 in payments it will make to IPCo. Staff further recommended extending the refund period from 10 to 20 years. Staff

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<sup>3</sup> Avimor calculates the lump sum refund it would receive to be \$1,354,500.

claimed if its recommendations were adopted, upward pressure on rates would be capped, but not eliminated.

## REPLY COMMENTS

### Negligible Rate Impact

Avimor is sensitive to cost issues, a primary reason it agreed to advance the funds for the design and construction of the Facilities with the opportunity for refund at a later date. Notwithstanding this assumption of risk which will mitigate rate impacts, Staff asserts Commission approval of the Agreement will cause substantial upward pressure on rates. *Comments* at p. 5. As will be discussed herein, Commission approval of the original Agreement or Avimor's Proposal will cause negligible impacts on IPCo customer rates.

Under the original Agreement, Avimor's payments to IPCo essentially amount to an interest free loan which the Utility will repay incrementally as the Company connects customers to the Facilities. *Agreement* at Section 4.2(b), p. 7, ¶ 3 (refund amounts will not include interest). Those amounts not refunded will be kept by IPCo and not impact customer rates. Avimor's willingness to undertake this risk that protects IPCo and ratepayers at its own expense should not be discounted.

Second, if Avimor meets its obligations under the Agreement, it will only receive refunds when residential, commercial and retail buildings, the wastewater treatment plant and other infrastructure improvements are connected to the Facilities. As the foregoing will be built and connected to the Facilities over a period of years, any refunds will be added to IPCo's rate base over an extended period of time. Avimor's Proposal extends

the projected amount of time necessary to recover a full refund by a minimum of 3 years longer than that anticipated through the Agreement.<sup>4</sup>

Third, any rate base additions resulting from refunds will not be included in customer rates until IPCo receives authorization from the Commission to do so. While Avimor has no control over the timing of IPCo's rate cases, the Utility generally does not file them annually. As such, it is likely that any upward pressure on rates would be spread out over general rate case filings, thus mitigating impacts on customers. An example of this is the Hidden Springs Planned Community ("Hidden Springs"). In 1998, the developer of Hidden Springs paid the cost for utility infrastructure improvements with the opportunity to receive refunds. IPCo refunded the full amount to the developer and these costs were not included in rates until over 5 years after they had been refunded. *See* Order No. 29505, IPC-E-03-13.

Finally, the Project's overall impact on IPCo's entire customer base if the payments are refunded to Avimor is very small. If the Commission were to accept the original Agreement, which Avimor is not proposing, Avimor were to receive a full refund of the payments **and** IPCo were to file a general rate case every year where the Commission authorized inclusion of the cost of the refund payments to the Utility into rates, the impact on customer rates would be 0.01% per year for 10 years, creating an overall impact of 0.1% when the full cost of the Facilities was authorized to be included in rates. After the recovery of all refunds and their inclusion in rates, any additional

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<sup>4</sup> Avimor's Proposal also would allow the Company to receive refunds based on Equivalent Dwelling Units ("EDUs") which means that each unit of construction that is equivalent to one home in electrical usage will also cause a refund to be paid to Avimor. Each home will be counted as one EDU, while commercial property will be counted as EDUs based on the kva rating of the distribution transformers serving each non-residential account. For example, all street lighting will be counted as 2 EDUs and when the elementary school is built in 7-8 years it will use the equivalent of 43 homes and have an EDU of 43.

customers in that area would connect to the system at little or no cost for IPCo and its ratepayers. In fact, additional connections may provide downward pressure on rates because the transmission and distribution substation equipment would already be paid for. Under Avimor's Proposal, the negligible rate impacts of the Agreement will be further mitigated.

#### Similar Projects, Rate Treatment and Discrimination

Although the cost for these Facilities is higher than the average cost for similar facilities currently in IPCo's rates, the allowance of such costs is not without basis.

According to IPCo, Avimor's Agreement is similar to the Utility's agreement with Hidden Springs. In 1998, Hidden Springs needed distribution substation equipment to serve the approximately 300 homes. To obtain these facilities, Hidden Springs entered into an agreement with IPCo where Hidden Springs agreed to pay the entire cost for the design and construction of the facilities with the opportunity to receive refunds from the Utility as customers connected to them. According to IPCo, the per customer investment for this distribution substation equipment was approximately \$2,333 per customer.<sup>5</sup> Hidden Springs was eventually refunded all the payments it made to IPCo, but the cost of these refunds to the Utility was not included in rates until 2004. *See* Order No. 29505, Case No. IPC-E-03-13.<sup>6</sup> It is safe to assume that if the Hidden Springs facilities were built today, the electrical distribution substation costs would be more expensive than in

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<sup>5</sup> Idaho Power response to Avimor Request No. 4: "The approximate cost of the Hidden Springs substation construction project was \$700,000. At an estimated average electrical load of ten average kilowatts, the three megawatt station would serve about 300 homes (provided there was no non-residential load served). Under these assumptions, the cost per home of that project was \$2,333."

<sup>6</sup> Email from Tim Tatum, Idaho Power Company Analyst, dated March 20, 2007, "[u]nder the agreement between Hidden Springs and Idaho Power, Hidden Springs was required to pay the full construction cost of the substation over two payments, both issued in 1998. As the subdivision phases were completed, Hidden Springs ultimately received full reimbursement of its original financial contribution. The total cost of the Hidden Springs substation was subsequently included into rate base for the purpose of determining customer rates."

1998.<sup>7</sup> A report done in 2007 by the Associated General Contractors of America generally supports the above proposition that construction costs, including those that would impact IPCo, have increased. *See Exhibit A.*

The Avimor Facilities costs, like those of Hidden Springs, include a cost for distribution substation equipment. Unlike Hidden Springs, the Facilities associated with Avimor include a cost for transmission equipment.<sup>8</sup> Using Staff's per customer investment figure, the cost for distribution equipment would be \$3,066 per connection, and for transmission equipment it would be \$3,211 per connection, for a total per customer investment of \$6,277.

Avimor's Agreement is essentially the same as the Hidden Springs agreement and as such should be accorded similar treatment. Based on IPCo's response to Avimor's request for information, *see* footnote 6 above, the \$2,333 per customer investment for Hidden Springs appears to have been included in rates. *See* Order No. 29505, IPC-E-03-13. Avimor should at least, at a minimum, also be authorized by the Commission to recover \$2,300 per customer connection for distribution substation equipment. If the Commission instead chooses to follow Staff's recommendation, such a decision would be discriminatory towards Avimor, a customer of IPCo, and further, possibly amount to a violation of the Equal Protection Clause of the United States Constitution.<sup>9</sup> *See Idaho Code* § 61-315; *Idaho State Homebuilders v. Washington Water Power Co.*, 107 Idaho 415, 690 P.2d 350 (1984); *Building Contractors Assn. of Southwestern Idaho, Inc., v. Idaho Public Utilities Commission*, 128 Idaho 534, 916 P.2d 1259 (1996). Based on the

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<sup>7</sup> Using a CPI increase in costs of 3% per year this cost would have been more than \$3,000 in 2007.

<sup>8</sup> Hidden Springs did not include any transmission costs because the distribution substation was located directly beneath a 138 kV line.

<sup>9</sup> Avimor is a customer of IPCo due to the Agreement and the fact that it will own various properties that will connect to the Facilities.

foregoing, Avimor asserts that it should be allowed to receive a refund of at least \$2,300 per connected customer for distribution substation equipment, just as the Hidden Springs developer did.

Aside from the above, Avimor believes that the Staff is making unfair or possibly inaccurate comparisons between the per customer investment for the Facilities it has calculated versus what it alleges: 1) is the same cost embedded in IPCo's rates; or 2) an average cost that it calculates from data in the Utility's last two rate cases. First, Staff states that the cost for the Facilities is much higher than the \$350 currently embedded in rates. Avimor asserts that it is patently unfair to the Company for Staff to compare the per customer investment for the Facilities to this number as it is significantly depreciated and includes all connections prior to 2003. Next, Staff asserts that the \$1,000 average per customer investment it calculates from the Utility's most recent rate cases is much lower than the per customer investment resulting from the Agreement. Although Staff's later figure provides a more reasonable comparison, the average per customer investment for a connection has likely increased as it was calculated from data included in IPCo's 2003 and 2005 rate cases. *See generally* Report from the Associated General Contractors of America (increasing construction costs). Thus, it is more equitable to Avimor to compare its costs against similar projects, or at least against a more updated IPCo average per customer investment figure.<sup>10</sup>

Another issue is that when Staff uses an average of \$1,000 for transmission and distribution costs per customer, it automatically implies that there are some customer connections which cost more and were later authorized to be included in IPCo's rates. In

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<sup>10</sup> Avimor asked IPCo for a more updated average cost figure and the Company responded generally that it does not track such data until it is preparing to file a rate case.

this case, Staff is not proposing that all costs for per customer connection above \$1000 be denied, rather it is only recommending such treatment for Avimor. This is unfair to the Company as little justification has been shown to treat this Agreement differently than other projects which have had a higher per customer investment than \$1,000. Further, just because the costs are higher than an average does not mean that they are not prudent. The customers in Avimor, including the Company who will own some of the commercial property and the water treatment plant, have a right to be served by IPCo at rates that are consistent with their rate class. Accordingly, the potential per customer investment that arises from Avimor's Proposal should be deemed prudent by the Commission.

Finally, it is important to understand that virtually all new equipment IPCo purchases will cause at least some upward pressure on rates because it is more expensive than older, partially depreciated equipment. Under Staff's rationale, if IPCo needs equipment that is more expensive than older, depreciated equipment already in rates, the Utility should only be allowed to recover up to the average amount already in rates. That would be an unreasonable and unfair position for the Commission to take. IPCo would not be able to recover its costs and would be hard-pressed to make the appropriate investments to keep its system functioning properly.

Energy Efficient Development is beneficial to IPCo and its Customers

Staff has not discussed the fact that Avimor's Project is designed and will be built with energy conservation in mind. The Commission should consider the positive impacts of the Company's energy efficient development when it makes its findings in this matter.

The conservation of energy through demand response/demand-side management ("DSM") and energy efficiency programs is becoming part of federal and state energy

policy as shown by the Energy Policy Act of 2005 (the “Act”) and its predecessors.<sup>11</sup>

Through the Act, the federal government provides incentives for: 1) the construction of energy efficient homes; and 2) making existing homes more energy efficient.

The Commission has similarly encouraged the utilities it regulates to engage in DSM and energy efficiency programs, stating:

This Commission continues to support the pursuit by PacifiCorp of cost effective DSM and energy efficiency programs. We find that cost effective DSM provides benefits to non-participants by reducing the overall cost of serving new load. It also benefits all Idaho customers by reducing Idaho allocation of system power supply costs.

Order 29952 at p. 2. *See also* Order No. 28189 at p. 21 (“Believing many DSM programs involving conservation, efficiency improvements and/or load shaping may sometimes be the least cost resource, we expect that the Company will have seriously exhausted and signed up all available cost-effective DSM prior to building a utility-owned supply-side resource[.]”); Order No. 30281, IPC-E-6-24 (Commission states that DSM/energy efficiency programs continue to be among the most cost-effective resources available to IPCo); and, Order No. 29726 at p. 10, IPC-E-04-18.

Although beneficial, one difficulty with DSM and energy-efficiency programs is that they may affect a utility’s ability to recover its fixed costs. However, through the approval of tariff riders and a decoupling mechanism to mitigate the financial disincentives for a utility to engage in DSM and energy efficiency programs, the Commission is attempting to eliminate these disincentives. For example, in the Commission’s Final Order accepting IPCo’s 2006 IRP it stated:

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<sup>11</sup> The Act required the Federal Energy Regulatory Commission to make an assessment of demand response and advanced metering and how these matters can result in energy conservation and become part of utility resource planning. *Assessment of Demand Response and Advanced Metering Staff Report*, Docket No. AD06-2-000 (August 2006).

The Commission recently approved a fixed cost adjustment mechanism designed to provide the Company financial neutrality to deviations in sales, such as lost sales due to DSM efforts. See Case No. IPC-E-04-15. The goals of the fixed cost adjustment are to remove the inherent disincentive to investing in demand-side measures and facilitate the Company's efforts to expand its DSM offerings.

Order No. 30281, Case No. IPC-E-06-24 at p. 12. On the same day it approved this decoupling mechanism, the Commission also approved a pilot program that should encourage the construction of energy-efficient homes. Order No. 30268, Case No. IPC-E-06-32. The Commission approved program provides incentive payments or penalties to IPCo for meeting or not meeting specified participation goals in the Energy Star Homes Northwest program. Order No. 30268 at p. 2. The Commission noted that on average, homes constructed to the Energy Star Standard will save an estimated 2,078 kilowatt hours annually, or 30 percent greater energy efficiency than existing Idaho residential building codes. *Id.*

Avimor's Project will meet or exceed the Energy Star standards for the 585 residential units that it will build and will encourage other builders building homes in the Project to do the same. Avimor believes its Project represents the very type of building the Commission seeks to promote. Avimor believes that if Commission adopted Staff's refund recommendations, such an action would contradict the conservation policy it is seeking to promote in the proceedings mentioned above. Accordingly, instead of adopting Staff's approach, Avimor presents its Proposal which, if adopted, will mitigate rate impacts and encourage further Energy Star development.

## **AVIMOR PROPOSED ALTERNATE RECOVERY METHODOLOGY**

Based on the foregoing arguments Avimor offers the following Proposal.

First, Avimor proposes an amendment to the refund provisions of the Agreement to allow the Company to receive refunds of \$3,900.00 per customer (including EDUs). And to require it to connect 1,103 customers or 11,030 kW of metered demand to receive a full refund of its payments made to IPCo for the Facilities. The Proposal also removes the lump sum payment provision contained in the original Agreement at Section 4.2(b), p. 7, ¶ 3 (on connecting 685 customers or connecting metered demand of 6,850 kW, IPCo will refund the remaining refundable balance to Avimor.)

The proposed \$3,900.00 per connecting customer refund is based on the following:

- \$2,300.00 – Distribution substation equipment. Avimor requests a per customer connection refund amount similar to the amount already in rates, and thus just and reasonable, from Hidden Springs even though this number converted into today's dollars would equal more than \$3,000.00. *See* footnote 7.
- \$1,600.00 – Transmission equipment. This represents 1/2 of the investment in transmission equipment per EDU that was originally requested for recovery.

While the Developer maintains that the entire amount should be recovered, it is willing to stretch out the recovery time based on a lower refund amount (including removal of any lump-sum provision) to mitigate any rate impacts.

As stated previously, Avimor estimates that at a refund rate of \$3,900.00, it will recover all the payments in 8 to 12 years, depending of course, on market conditions.<sup>12</sup>

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<sup>12</sup> If the original Agreement were approved Avimor's believes that based on the same forecasted market conditions that it would recover all payments made to IPCo less than 5 years.

Avimor does not have any objection to extending the refund period to 20 years as proposed by Staff. However, if this period is extended, Avimor requests that the Commission allow the accrual of interest on the deferred refunds at a rate that is equivalent to a long-term market index. The accrued interest will offset the invested funds frozen at IPCo and allow Avimor to continue to proceed as planned. Interest is not unreasonable considering that Avimor is willing to extend its recovery of the payments from a period estimated to be less than 5 years to 8 to 12 years. The Commission has allowed interest to be collected on other deferred costs for Idaho Power,<sup>13</sup> and whenever a deferral period is extended, interest should be allowed to be collected. If after 20 years the Company has not recovered the \$4,300,000 in payments and interest associated with that investment, it will forfeit those amounts to IPCo and not seek further recovery. If such forfeiture occurs, any such amount will not be included in customer rates.

Avimor also requests that the Commission allow the Company to recover refunds based on the estimated EDUs that may use the Facilities from any development not a part of the Avimor Project. Avimor believes Staff has no objection to this.

### **CONCLUSION AND SUMMARY**

Based on the foregoing, Avimor asserts that its Proposal addresses Staff's concerns regarding rate impacts as it reduces what is already a negligible impact and still encourages the building of energy efficient homes. In summary, Avimor makes the following proposals and changes to its Agreement with Idaho Power, which it respectfully requests that the Commission approve:

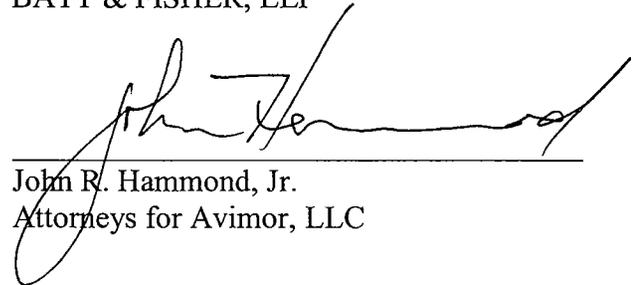
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<sup>13</sup> See cases IPC-E-01-41, Order No. 28975 – Deferral of extraordinary security costs following 09-11-2001, IPC-E-03-13, Order No. 29601 – Deferral of income tax expense, Case No. IPC-E-04-09, Order No. 29600 – Deferral of a customer credit stemming from the settlement of multiple issues.

1. Reduction of the refund per customer connection or EDU to be received by Avimor from \$6,277 (including the lump-sum provision) to \$3,900 (without the lump-sum provision);
2. The requirement that Avimor connect 1,103 customers or EDUs (including non-Avimor connections) or metered demand of 11,030 kW prior to it receiving a full refund of the \$4,300,000 in payments it will make to IPCo.
3. An extended refund period of 20 years;
4. Accrual of interest on the unrefunded balance of the payments at a rate equivalent to a long-term market rate for a secure investment. The accrued interest will be paid to Avimor after all the refunds have been collected or will be forfeited in its entirety if Avimor does not connect 1,103 customers or metered demand of 11,030 kW;
5. IPCo requiring any other non-Avimor connections to the Facilities to pay a lump sum to the Utility, prior to the connection, based on the estimated number of customer hook-ups or metered demand which would then be passed through to Avimor; and,
6. For such further relief as the Commission finds just and reasonable.

DATED This 2<sup>nd</sup> day of April, 2007.

BATT & FISHER, LLP



John R. Hammond, Jr.  
Attorneys for Avimor, LLC

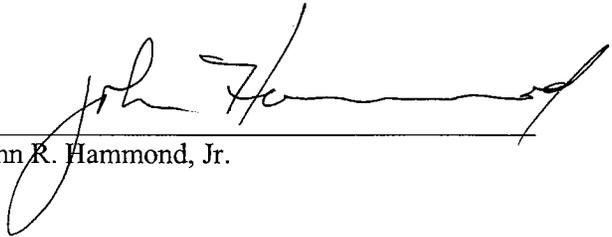
**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY That on this 2<sup>nd</sup> day of April, 2007, I served the foregoing upon all parties of record in this proceeding as indicated below:

Jean Jewell [ ] Certified Mail  
IDAHO PUBLIC UTILITIES COMMISSION [ ] First Class Mail  
472 W. Washington Street [x] Hand Delivery  
P. O. Box 83720 [ ] Facsimile  
Boise, Idaho 83720-5983  
[jjewel@puc.state.id.us](mailto:jjewel@puc.state.id.us)

Monica B. Moen [ ] Certified Mail  
IDAHO POWER COMPANY [x] First Class Mail  
P. O. Box 70 [ ] Hand Delivery  
Boise, Idaho 83707-0070 [ ] Facsimile  
[mmoen@idahopower.com](mailto:mmoen@idahopower.com)

Weldon Stutzman [ ] Certified Mail  
IDAHO PUBLIC UTILITIES COMMISSION [ ] First Class Mail  
472 W. Washington Street [x] Hand Delivery  
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John R. Hammond, Jr.

**EXHIBIT A**

# AGC's CONSTRUCTION INFLATION ALERT

REPORTED BY AGC CHIEF ECONOMIST KEN SIMONSON



March 2007

*Building Your Quality of Life*

## Construction Materials Costs: Lull between the Storms

From early 2004 to mid-2006, the construction industry was plagued by runaway materials cost increases. Many of these price increases have slowed or even reversed course modestly in recent months. Unfortunately, it seems likely that the current calm is only a lull between storms and not a return to the inflation-free period of 2001-2003. By the end of 2007, materials costs could be rising again at a 6-to-8 percent rate, with wages rising at a 5 percent pace.

This report documents what has happened to materials costs in three recent periods (2001-2003, 2004-mid-2006, and late 2006-early 2007). It provides a short-term and long-term examination of the expected volatility for construction inputs including crude oil, metal and concrete, and outlines implications for future costs for building, highway and other heavy construction. For the first time, the *Construction Inflation Alert* looks at the impact of the construction industry on job growth, and presents an analysis of construction wages that suggests pay is accelerating.

For readers interested in greater detail, there are two appendices. Appendix A enables readers to compare materials cost increases and consumer price changes over different intervals, by means of two tables that show the monthly value from 1997 through early 2007 of the producer price index (PPI) for construction materials and components and the consumer price index (CPI). Appendix B lists the five industries whose output contributes the most to PPIs for construction as a whole and for several specific types of construction.

## Measuring Construction Costs

The Bureau of Labor Statistics (BLS) tracks the cost of construction materials and components (items such as diesel fuel that are consumed during construction) each month by getting reports from producers of their selling prices for precisely specified items. BLS turns the prices from multiple producers of a given item into a single index number, the PPI for that item. BLS also calculates PPIs for groups of items, such as

*The Construction Inflation Alert is the fourth in a series of continuing economic reports educating contractors and owners on construction materials prices.*

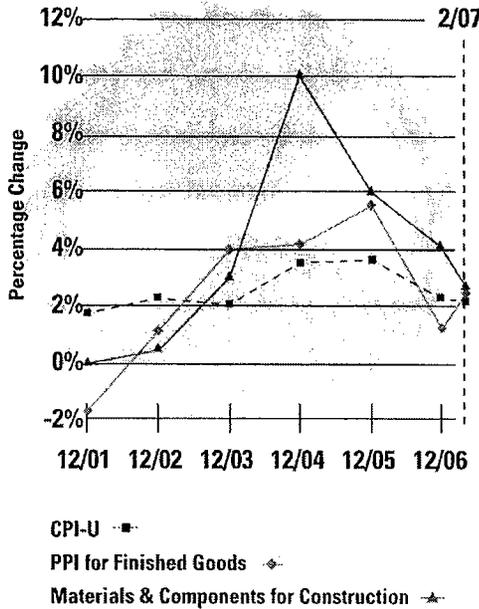
[www.agc.org](http://www.agc.org)

The Associated General  
Contractors of America  
2300 Wilson Boulevard  
Arlington, Virginia 22201

**Chart 1**

**Changes in Consumer, Producer & Construction Prices**

*(12-Month Change through Month Shown)*



steel mill products, or for an industry, such as the highway and street construction industry. Industry indexes are weighted averages of the PPIs for hundreds of items used by that industry.

Because prices are gathered at the producer's loading dock or other point of sale, they do not include amounts contractors actually pay for shipping, insurance, storage, fabrication or installation. Such costs vary greatly according to the mix of materials used on a project, distance from the producer's point of sale, construction labor rates in a locality and other factors.

Recently, however, BLS has introduced three indexes for the costs of new warehouse construction (beginning December 2004), schools (December 2005) and office buildings (June 2006). These indexes are based on materials cost estimates from an estimating firm and contractors' estimates of their labor costs and overhead (including profits) for a hypothetical building. Over time, these indexes should become useful guides to final costs.

All PPIs are given a value of 100 at the time they are introduced or recalibrated. Because these dates vary, comparing the actual index number between two commodities or industries is not meaningful. Instead, this report presents the change in PPIs, including the PPI for finished goods (the most commonly cited measure of producer-level cost changes) and in the CPI for all urban consumers (CPI-U, a widely referenced measure of inflation at the consumer level) over various intervals.

Labor costs are measured differently. BLS presents a measure of average hourly earnings for "nonsupervisory or production workers" in construction each month as part of the employment report. But unlike the fixed "basket" of goods that makes up the PPI, the mix of workers by construction segment and craft changes each month. Those shifts mask the change in costs experienced by a given industry segment, especially when homebuilding employment, with its lower wage and skill mix, changes at a different rate from nonresidential segments. Accordingly, this report includes reference to two private sources specific to nonresidential construction, in addition to the BLS figures.

**Construction Costs vs. the CPI and PPI**

The CPI-U and the finished-goods PPI are widely used by budget officials to project cost changes for all items, including construction. Therefore, it is useful to compare the performance of the broader indexes with the PPI for construction materials and components.

Chart 1 (on page 2) and Table 1 (on page 10) compare the annual change from 2001 to 2006 (to be exact, the 12 months ending in December in each of those years) for the three indexes. As the graph shows, there was very little increase in any of the measures in 2001 through 2003. The CPI increased about 2 percent each year. Changes in the PPI for finished goods ranged from -1.6 percent in 2001 to 4 percent in 2003. The PPI for construction inputs did not change at all from December 2000 to December 2001, rose just 0.8 percent the following year, and climbed 3 percent in 2003.

But in 2004, there were huge price increases for steel, wood products, gypsum wallboard and diesel fuel. PPIs for several inputs are shown in Chart 2 (top right); Chart 3 (bottom right) and Chart 4 (on page 4); more are included in Tables 2 and 3 (on pages 10-11). While steel and wood products prices began declining slightly late in the year, the construction PPI jumped 10.1 percent for the year, far outpacing the 4.2 percent increase in the finished-goods PPI and the 3.4 percent change in the CPI.

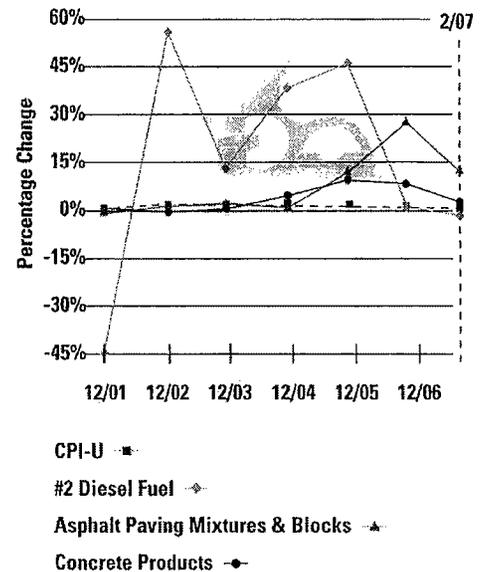
In 2005, steel and wood products prices declined throughout the year. Those drops moderated, but did not fully offset, continuing increases in gypsum, diesel, concrete, asphalt, copper, plastics and other costs. For the year, construction materials costs climbed 6.1 percent, less than the 10 percent rise of the prior year but more than the 5.4 percent increase in the overall PPI or the 3.5 percent gain in the CPI.

In the first half of 2006, materials that were rising in 2005 continued to go up in price, with some (such as copper and asphalt) accelerating from already high rates of change. In addition, some steel prices turned back up and aluminum costs advanced at double-digit rates. Only wood products prices fell.

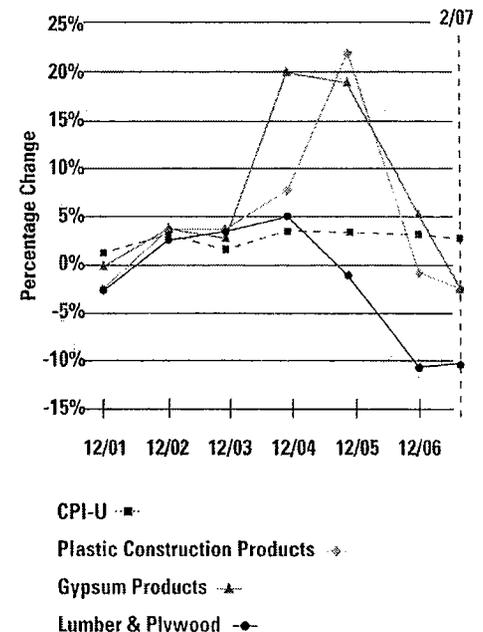
**Several factors converged in the second half of 2006 to moderate the earlier price increases.** Crude oil prices, which set a record last July on the New York Mercantile Exchange of \$78 per barrel for next-month delivery of West Texas Intermediate crude, tumbled to \$50 per barrel by early January 2007. Retail prices for diesel fuel dropped nearly in tandem, from a high of \$3.06 in August to \$2.41 in January. Lower energy costs and slackening demand from home building helped bring down prices for gypsum and plastics, and slow the rate of increase for concrete. Copper futures prices, which had more than doubled between January and May 2006, fell about 35 percent by year-end, leading to a small drop in prices for copper and brass mill shapes (such as pipe, wire, fixtures, flashings and gutters).

**Chart 2**

Changes in PPIs for Selected Highway Inputs  
(12-Month Change through Month Shown)

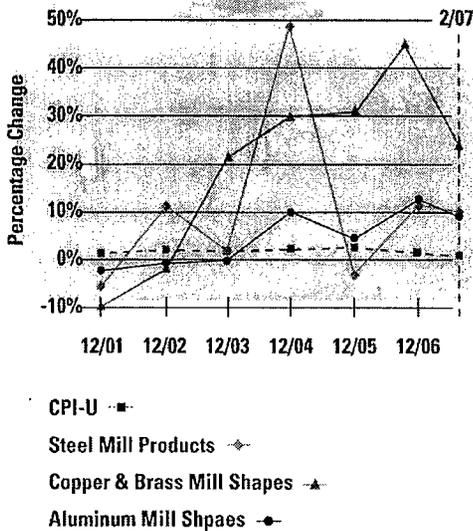

**Chart 3**

Changes in PPIs for Selected Building Inputs  
(12-Month Change through Month Shown)



**Chart 4**

**Changes in PPIs for Selected Metal Products**  
(12-Month Change through Month Shown)



The drop in energy costs also benefited consumers and most producers. The CPI wound up 2006 only 2.5 percent higher than in December 2006, and the finished-goods PPI was up a mere 1.1 percent. The PPI for construction materials and components climbed 4.3 percent, better than in the previous two years but nevertheless more than the inflation adjustment many budget-setters and cost estimators had been using.

In recent months, energy costs plunged, then rebounded. There were also declines in the PPIs for construction plastics, gypsum products, copper and brass mill shapes. These were offset by an unusual rise in lumber and plywood prices and increases in concrete and aluminum prices. The ricocheting energy costs brought the finished-goods PPI down 0.2 percent in January and back up 1.1 percent in February, while the construction PPI slowed to a monthly gain of 0.3 percent in January and 0.1 percent in February.

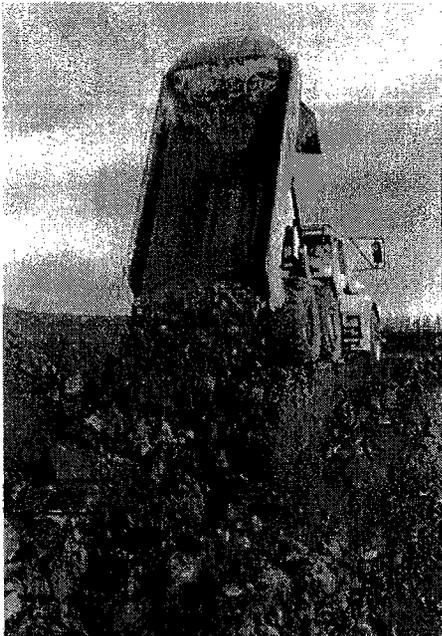
Appendix A (on page 12) shows the PPI for construction materials and components for each month from January 1997 through February 2007, enabling readers to calculate the cumulative increase in the index over any interval during that period. Appendix A also shows the CPI-U for those months, allowing comparison between construction costs and consumer costs.

**Price Changes by Construction Segment**

There is considerable variation in the mix of materials used for different types of construction. Accordingly, there has been a wide range of price increases, as shown by Chart 5 (on page 5) and Table 4 (on page 11). The five industries whose products contribute most heavily to the movement of the PPIs for several construction segments are shown in Appendix B (on pages 13-14). The largest price jumps were for highway and street construction, for which the PPI is weighted more than 50 percent toward indexes for the industries producing diesel fuel, asphalt, concrete and steel. Each of these materials experienced double-digit price increases on an annual basis in 2005 and early 2006.

In general, price increases were more moderate for materials and components used in building construction. However, even these segments experienced bigger cost increases than consumers did.

Conversely, the steep decline in petroleum product prices in late 2006 led to a larger deceleration in construction prices than in the CPI. Nevertheless, the construction PPI was still rising faster than the CPI in recent months.



## Near Term Prospects

Unfortunately, the good news for construction inputs may be short-lived. Crude-oil futures touched bottom around January 9, the day that producers reported prices for the January PPI. Less than two months later, the futures price topped \$62 per barrel, a 24 percent increase, before dropping somewhat. Crude oil is refined into diesel fuel, asphalt and feedstocks for some plastics, as well as gasoline, jet fuel and heating oil. Not surprisingly, diesel fuel prices also moved up—25 cents per gallon from late January to mid-March— as had the futures price for natural gas, a competing energy and feedstock source. By spring, therefore, the PPIs for diesel fuel, asphalt, construction plastics, and other energy-intensive products are likely to go higher.

Separately, some metal prices have been rising. In particular, mills producing structural steel and reinforcing steel (such as rebar, used to reinforce concrete pavement, and strand for prestressed steel for structures) announced increases for February, March and April. As of mid-March, the cash price for stainless steel scrap was more than double the year-ago price, implying that stainless steel pipe for industrial and medical construction would continue rising from already-high levels. Aluminum supplies may tighten as a result of a two-week strike in Guinea, the leading producer of bauxite, the ore that is the source of raw aluminum. Copper futures rose about 20 percent from their lows in late 2006. Futures prices for nickel, tin and zinc—used for stainless and galvanized steel and other alloys—hit records or multi-year highs.

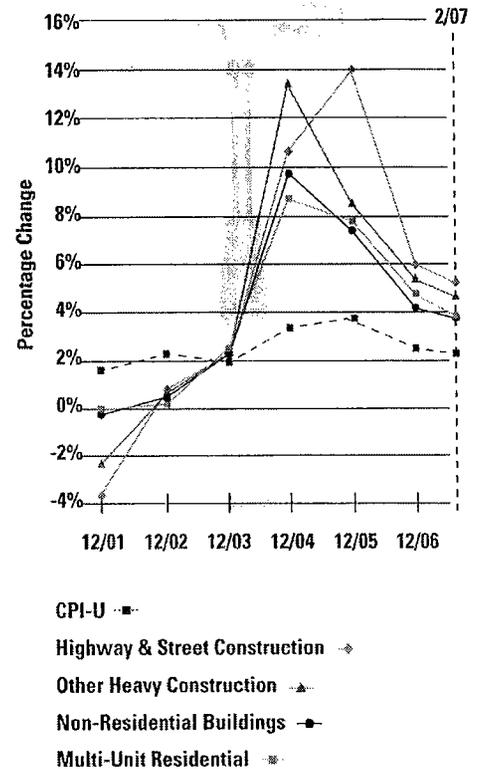
Concrete prices may also rise. The PPIs for cement and construction sand/gravel/crushed stone both moved up in the past three months, which will affect near-term concrete costs. Concrete is made from cement, sand, crushed stone (known as aggregate) and water, and requires lots of fuel to mine, mill, mix, and deliver the ingredients.

The best prospects for further price declines are for gypsum and wood products. Both of these categories are used heavily by home builders, who are continuing to reduce starts. In addition, manufacturers of both wallboard (gypsum) and oriented-strand board (wood) have been adding more capacity than the market can currently absorb, adding to downward pressure on prices.

These divergent trends suggest that the annual rate of change for construction materials and components prices, which was 2.9 percent in the 12 months through February 2007, will be 4-to-6 percent by summer, with double-digit increases possible for concrete and some metals products. The greater volatility that can be expected for petroleum, concrete, and metals products implies that highway and other heavy construction are more likely to experience large price jumps again than are building construction segments. But

**Chart 5**

**Changes in PPIs for Construction Types**  
(12-Month Change through Month Shown)





even building construction is at risk of much higher materials cost increases than the general rate of inflation.

## Longer-Term Outlook

Two factors distinguish construction costs from the costs facing consumers or most other industries. First, the CPI includes large amounts of services and goods for which materials are not a significant share of the costs, or for which substitution among materials is possible. In contrast, materials are a major part of construction costs, and contractors are generally required to use roughly the same types and quantities of materials for a given job as in earlier years. Many of these materials are in strong demand worldwide, particularly from economies (such as those of China, India, and other Asian countries) that are simultaneously industrializing, building large amounts of infrastructure and getting a modern consumer class. Copper, for instance, is needed for all these markets. But there are only a few copper mines that supply most of the world's ore. In 2006, most of those mines faced strikes (Chile), other labor unrest (Mexico) or political strife (Congo) that kept supplies from expanding. The result: price spikes. **Price spikes are likely to be chronic for many construction materials, and to occur with little warning.**

Second, every material used in construction must be physically delivered. Again, this is unlike services, many of which involve electronic delivery or only minor transportation costs. Even when a construction material is abundant worldwide, such as cement, there may be high delivery costs, particularly when economies are growing. Cement had been in short supply in 30-some states in 2004 and 2005. Supplies were ample in 2006, partly because China more than doubled its exports to the U.S. (and partly because the U.S. and Mexico, at the urging of AGC and others, signed an agreement to end duties on Mexican cement—see box on page 7). But the imports traveled in the same dry-bulk carriers that are in demand for iron and steel scrap, copper ore and other materials. As a result, **shipping rates**—an important component of the delivered price for inherently low-value items like cement—**have risen sharply over the past few years.** Ports, rail lines, trucking and barge companies all have experienced demand surges and/or bottlenecks that have pushed up delivered costs for materials.

When transportation networks are stretched tight, fuel cost increases also are likely to be passed along to customers. Indeed, contractors report that fuel surcharges are more common than in the past. Since a large construction job entails thousands of deliveries of materials and equipment, as well as hauling away of dirt, debris and equipment at

## Cement—A Hot Commodity

In both 2004 and 2005, there were reports of cement shortages in more than 30 states. The shortages appeared as demand for cement rose sharply from single- and multi-unit homebuilding, nonresidential building, and public works, while domestic supplies remained nearly constant. Meanwhile, an anti-dumping duty on Mexican cement, in place since 1990, pushed up the price of cement imported from Mexico by 50-60 percent.

AGC led a campaign, joined by other associations and companies concerned that shortages would lead to project delays and layoffs, to end the anti-dumping duty. Several governors and members of Congress also sought suspension or repeal of the duty. The *Wall Street Journal* criticized the duty in an editorial that drew on information supplied by AGC. In March 2006, the U.S. and Mexico signed an agreement that reduced the duty from more than \$26 per metric ton to \$3 per metric ton immediately, with elimination of the duty planned for April 2009.

In 2006, there were no reported shortages of cement, despite continuing growth of demand. Mexican imports increased somewhat but the biggest expansion was from China, which more than doubled its exports of cement to the U.S. compared to 2005 levels. China had built large new plants on its coast and, for the moment at least, has excess capacity that it is selling in the U.S. and elsewhere. However, the cost of shipping cement from across the ocean is high, because the same ships that carry cement are in demand for hauling scrap metals, ores and other commodities. Thus, cement prices have continued to rise.

The U.S. cement industry has begun adding capacity. But current plans will take as long as four years to build out and may not be sufficient to keep up with the growth of demand, let alone substitute for existing imports. Therefore, further cement price increases appear to be likely. Periodic, localized shortages are also a strong possibility, especially in regions where breakdowns in a single plant or transport mode cut the only local source of cement.



*AGC CEO Stephen E. Sandherr greets U.S. Commerce Secretary Carlos Gutierrez at the signing to lift Mexican cement tariffs held at the Commerce Department in Washington, D.C.*

the end of the job, fuel surcharges can add significantly, and unexpectedly, to costs.

These factors—dependence on fixed types and quantities of materials for which demand is growing and supply is erratic, and high and volatile transportation and fuel costs—make it likely that construction materials and components prices will rise by 6-to-8 percent per year as long as the world economy is growing. Higher price spikes are probable any time fuel prices surge or if there is a major disruption of output or transport.



Conversely, prices can moderate or drop when fuel prices fall, but such price breaks tend to be short-lived.

## Labor Supply and Costs

The construction industry has been a major contributor to job growth in the past decade, BLS data show ([www.bls.gov/ces](http://www.bls.gov/ces)). From February 1997 to February 2007, the industry created one out of 10 new jobs in the economy, double the industry's share of overall employment. Construction employment increased by nearly 2 million, or 33 percent, while total nonfarm payroll employment rose barely one-third as fast, or 13 percent. Yet seasonally adjusted average hourly earnings of production workers in construction actually rose a little less rapidly, 33 percent, than in the private nonfarm sector as a whole, 39 percent.

In the past year, however, construction wages have begun to accelerate, even though overall construction employment gains have slowed. Construction employment fell by 18,000, or 0.2 percent, from February 2006 to February 2007, while average hourly earnings rose to an all-time high of \$20.60 per hour, up 4.8 percent from 12 months before. Part of this apparent speedup is due to a changing mix: increases in higher-paid, high-skill nonresidential employment, combined with declines in lower-paid, less skilled residential occupations would tilt the average even if the hourly rate for each job remained constant. But other indicators also suggest that construction pay is accelerating.

First-year wage settlements for construction union employees on contracts signed in 2006 rose 4.5 percent, up from around 4 percent for the previous several years, according to an analysis by the Construction Labor Research Council, an independent organization funded by AGC and others. The average second-year increase on 2006 contracts was 4.7 percent.

The average salary increase for construction-industry executives in 2006 was 5.0 percent, according to the latest report from consulting firm PAS, Inc. ([www.pas1.com](http://www.pas1.com)). This compares with an average increase of 4.4 percent in 2005 and 4.2 percent in 2004. Due to "the quickening of construction activity," PAS anticipates the average increase to be about 5.5 percent in 2007.

The mix of construction jobs has changed markedly in the past year as homebuilding has declined while nonresidential construction has remained vibrant. BLS's two residential construction employment categories, residential building and residential specialty trade contractors, shed 133,000 jobs, or 3.9 percent of their February 2006 totals in the past 12 months. The other three categories, heavy and civil

engineering, nonresidential building and nonresidential specialty trade contractors, added 115,000 jobs, or 2.7 percent.

Further declines in homebuilding employment in 2007 will add somewhat to the pool of available workers for nonresidential jobs. Some plumbers, electricians, and wallboard and concrete workers can readily transfer from residential to commercial work, for instance. But there is relatively little call for carpenters in nonresidential work. Conversely, homebuilders employ few of the tower-crane or paving-machine operators that will be needed for large-scale building or highway work.

Consequently, nonresidential wages and salaries are likely to rise at roughly a 5 percent rate in 2007, up from 4.5 percent in 2006 and 4 percent or less in 2005 and earlier years. A 5 percent rate of wage increases seems likely in future years as long as demand for nonresidential construction remains strong.

## Conclusion

Construction cost increases slowed markedly in the last half of 2006. But the relief is likely to be short-lived and may have ended already. Several key inputs are rising in price now, with more increases expected as long as economic growth continues in the U.S. and Asia.

Construction is vulnerable to high price increases because the industry has little ability to avoid using materials that are in strong demand and for which supplies increase irregularly. In addition, the need for physical delivery of materials means the industry is affected by upward pressure on freight costs, transportation bottlenecks, and fuel price spikes.

The industry also may be entering an era of accelerating wage and salary costs. Demand for skilled craft workers, supervisors, estimators and managers is growing as the volume of nonresidential construction increases. However, low unemployment throughout the economy means there are fewer applicants to choose from while more skilled construction workers are reaching retirement age.

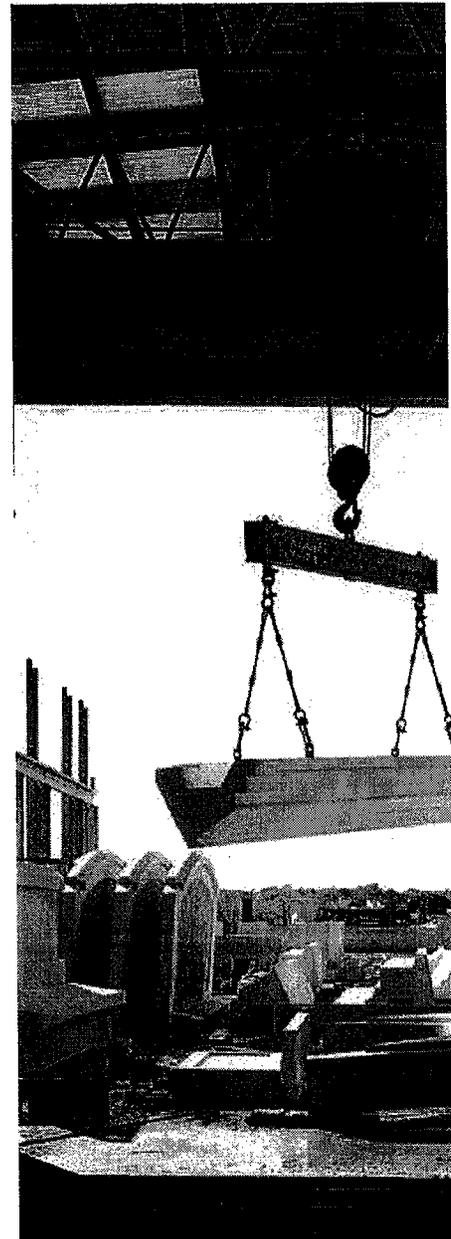


Table 1: Changes in Consumer, Producer &amp; Construction Prices

	12 Months through December						to February 2007 over the Past:		
	2001	2002	2003	2004	2005	2006	1mo	3mo	1yr
Consumer Price Index (CPI-U)	1.6	2.4	1.9	3.3	3.4	2.5	0.4	1.0	2.4
Producer Price Index (PPI) for Finished Goods	-1.6	1.2	4.0	4.2	5.4	1.1	1.1	1.4	2.5
✓ PPI for Materials and Components for Construction	0.0	0.8	3.0	10.1	6.1	4.3	0.1	0.3	2.9
New Warehouse Construction	- not available before 2005 -				7.5	8.4	-0.2	1.1	8.0
New School Construction	- not available; series began 12/05 -					17.4	0.3	3.9	17.4
New Office Construction	- not available; series began 6/06 -					n.a.	-0.2	1.7	n.a.

Table 2: Changes in PPIs for Specific Construction Inputs

#2 Diesel Fuel	-44.7	54.4	13.0	37.9	46.7	2.3	7.0	-1.9	-1.4
Asphalt (at Refinery)	not available		10.0	18.3	17.8	36.5	13.8	-9.3	36.6
Asphalt Paving Mixtures & Blocks	0.9	2.0	3.7	4.3	14.4	27.1	0.4	0.6	23.0
Asphalt Felts & Coatings	4.6	-0.6	6.3	4.1	15.3	3.0	-1.1	1.3	3.9
Concrete Products	2.5	-0.3	1.5	7.6	10.1	7.9	0.5	1.7	4.8
Concrete Block & Brick	2.3	1.6	3.2	4.7	8.1	7.0	0.7	1.2	4.5
Concrete Pipe	4.4	1.7	1.4	5.5	7.5	3.8	-0.3	-0.4	3.0
Ready-mixed Concrete	2.5	-1.1	2.1	8.7	11.3	9.8	0.4	1.7	4.8
Precast Concrete Products	0.7	0.3	2.5	6.0	6.0	3.9	0.7	2.4	5.1
Prestressed Concrete Products	5.3	1.8	-0.2	8.2	14.3	4.9	1.5	2.4	6.1
Brick & Structural Clay Tile	5.3	1.9	0.7	3.0	9.4	5.8	-0.2	0.1	2.9
Plastic construction Products	-2.7	3.1	3.2	7.2	21.6	-0.6	0.3	-1.2	-2.9
Gypsum Products	0.4	3.4	2.8	20.0	18.8	5.4	-2.4	-4.4	-2.6
Insulation Materials	0.4	-1.5	2.0	8.6	2.6	4.5	-0.1	-0.9	0.4
Lumber & Plywood	-2.9	1.4	3.1	5.0	-1.1	-10.8	0.3	3.1	-10.5
Architectural Coatings	2.9	0.6	3.9	5.3	9.2	6.0	0.4	0.5	6.4
Steel Mill Products	-6.1	11.1	1.7	48.8	-3.8	11.6	1.4	0.8	10.8
Hot-rolled Bars, Plates, & Structural Shapes	-4.3	2.1	11.3	53.8	-1.0	6.7	2.4	-0.6	8.9
Steel Pipe & Tube	-3.7	9.1	3.3	66.0	1.2	6.2	-1.9	-3.3	3.2
Copper & Brass Mill Shapes	-9.5	-1.6	11.6	29.6	31.0	44.3	-4.5	-10.2	23.5
Aluminum Mill Shapes	-2.9	-0.9	-0.5	9.9	5.0	12.4	0.5	2.5	9.5
Fabricated Structural Metal	-1.3	-2.4	0.1	24.7	2.8	5.2	0.4	1.0	5.3
Fabricated Structural Metal for Buildings	-1.5	-3.3	-0.1	20.0	3.1	3.4	0.0	0.6	2.5
Architectural & Ornamental Metalwork	-0.1	3.7	0.7	23.5	3.1	2.5	0.4	2.8	5.7
Fabricated Iron & Steel Pipe, Tube, & Fittings	0.6	0.1	1.2	32.6	5.5	4.9	0.1	-3.8	-0.2
Fabricated Steel Plate	0.6	-1.0	0.6	7.6	0.6	8.6	0.0	0.8	8.6
Prefabricated Metal Buildings	0.0	4.0	-0.7	35.5	2.0	6.2	-1.1	-1.0	4.6
Construction Machinery & Equipment	-0.1	1.9	1.3	6.0	4.9	3.4	0.6	1.2	2.5

✓ **Table 3: Changes in PPIs for Basic Inputs Important to Construction**

	12 Months through December						to February 2007 over the Past:		
	2001	2002	2003	2004	2005	2006	1mo	3mo	1yr
<b>Crude Petroleum (Domestic Production)</b>	-42.4	60.6	14.3	30.5	49.6	-0.1	6.4	1.4	-2.1
<b>Industrial Natural Gas</b>	-36.7	12.2	20.3	20.1	31.5	-17.7	5.0	0.3	-11.2
<b>Plastic Resins &amp; Materials</b>	-9.8	9.2	6.4	28.6	10.8	-6.2	-0.6	-3.7	-4.8
<b>Construction Sand/Gravel/Crushed Stone</b>	3.3	2.5	2.4	4.3	7.7	9.3	1.9	3.9	9.7
<b>Cement</b>	1.0	1.3	-1.1	7.9	12.2	10.4	-0.8	1.6	5.8
<b>Iron Ore</b>	1.5	-1.3	1.6	6.7	15.5	7.5	0.0	-6.0	1.4
<b>Iron &amp; Steel Scrap</b>	-5.6	27.8	64.9	50.8	-10.8	2.8	10.8	22.8	20.2
<b>Copper Ores</b>	-19.6	3.6	37.4	65.1	39.3	n.a.	n.a.	-13.7	32.8
<b>Copper Base Scrap</b>	-17.4	11.2	30.7	34.5	51.9	47.3	-1.6	-9.6	21.2

✓ **Table 4: Changes in PPIs for Construction Types**

<b>Highway &amp; Street Construction</b>	-3.6	1.0	2.6	10.8	14.1	6.0	1.3	1.1	5.1
<b>Other Heavy Construction</b>	-2.6	1.0	2.6	13.4	8.8	5.6	0.5	0.3	4.6
<b>Nonresidential Buildings</b>	-0.5	0.7	2.4	9.3	7.4	4.1	0.6	0.5	3.4
<b>Multi-unit Residential</b>	-0.1	0.4	2.7	8.9	7.8	4.8	0.6	1.0	3.6
<b>Single-unit Residential</b>	-0.4	0.6	3.5	7.0	6.9	4.2	0.4	0.7	3.0

Updated 3/16/07 Source: Bureau of Labor Statistics (BLS): [www.bls.gov/cpi](http://www.bls.gov/cpi) for CPI, [www.bls.gov/ppi](http://www.bls.gov/ppi) for PPIs

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## Appendix A: Monthly Values for Construction and Consumer Price Indexes

Shown below are the monthly values beginning in January 1997 of the PPI for construction materials and components and the CPI-U. To calculate the cumulative percentage increase over any interval, take the difference between the ending and starting index numbers, divide by the starting number, and multiply by 100 percent. For example, the cumulative change in the construction PPI from January 2004 to January 2007 was:

$$(190.2-156.2)/156.2 = .218 \text{ or } 21.8\%$$

$$\text{Jan. 198} \rightarrow \text{Jan/07} = 30\%$$

During the same span, the change in the CPI-U was:  $(202.4-185.2)/185.2 = .093$  or 9.3%.

### ✓ Producer Price Index for Construction Materials and Components

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1997	145.0	145.7	146.2	146.8	147.2	147.0	147.2	147.1	146.8	146.4	146.6	146.4	146.5
1998	146.3	146.4	146.7	147.0	146.9	146.7	147.2	147.4	147.3	146.7	146.6	146.6	146.8
1999	146.9	147.3	147.8	148.0	148.5	149.5	150.5	150.4	149.6	149.1	149.4	149.8	148.9
2000	150.4	150.8	151.3	151.6	151.0	151.2	150.8	150.4	150.3	150.2	150.1	149.9	150.7
2001	149.7	150.1	150.2	150.4	151.6	151.7	151.1	151.1	150.9	150.3	150.2	149.9	150.6
2002	150.2	150.2	150.7	151.1	151.4	151.5	151.7	152.1	152.1	151.7	151.2	151.1	151.3
2003	151.4	152.1	152.3	152.9	152.9	153.0	153.6	153.7	155.0	155.2	155.6	155.6	153.6
2004	156.2	159.0	161.9	164.7	166.9	166.9	167.5	169.8	170.9	170.8	170.7	171.3	166.4
2005	173.1	174.7	175.1	175.4	175.0	175.5	175.7	175.4	177.0	179.2	180.8	181.7	176.6
2006	184.2	185.0	185.5	186.7	188.2	189.2	190.2	190.7	191.0	190.4	189.8P	189.6P	188.4P
2007	190.2P	190.4P											

P: Preliminary. All indexes are subject to revision four months after original publication.

Source: Bureau of Labor Statistics, [www.bls.gov/ppi](http://www.bls.gov/ppi)

### Consumer Price Index for All Urban Consumers

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5	161.3	160.5
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0	164.0	163.9	163.0
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3	168.3	166.6
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0	174.1	174.0	172.2
2001	175.1	175.8	176.2	176.9	177.7	178.0	177.5	177.5	178.3	177.7	177.4	176.7	177.1
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3	180.9	179.9
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5	184.3	184.0
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0	190.3	188.9
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	195.3
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	201.8	201.6
2007	202.4	203.5											

Source: Bureau of Labor Statistics, [www.bls.gov/cpi](http://www.bls.gov/cpi)

$$\text{CPI} - \text{Jan/04} - \text{Jan/07} = 9.3\%$$

## AGC Resources for Tracking Construction Economic Information

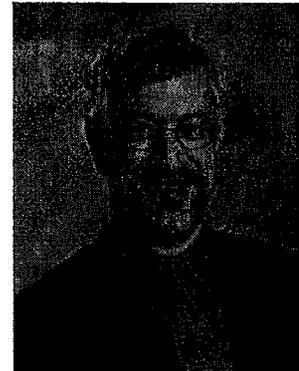
AGC provides a variety of materials to help contractors, owners and the public learn what is happening to construction costs. *The Data DIGest* is a weekly one-page email newsletter covering economic developments, including cost and supply issues, affecting construction. It is posted at [www.agc.org](http://www.agc.org); for a free subscription, email [simonsonk@agc.org](mailto:simonsonk@agc.org). Once a month, tables of PPIs for construction materials and segments are sent along with *The Data DIGest*. AGC also offers free podcasts about construction economics once or twice a month; go to [www.agc.org/podcast](http://www.agc.org/podcast) to see the latest offerings. Back issues of AGC's Construction Inflation Alert are posted at [www.agc.org](http://www.agc.org). Audio conferences with experts on construction economics and specific materials and segments are held twice a year and can be purchased for download; go to [www.agc.org/audioconference](http://www.agc.org/audioconference).

### About the Author

Ken Simonson has been Chief Economist for AGC of America since 2001. In that role, he provides a multitude of information, through written materials, personal appearances, and media interviews, about the role of construction in the economy and about economic developments affecting construction nationally and locally.

Ken was recently appointed to the Blue Ribbon Panel of experts advising the National Surface Transportation Policy and Revenue Study Commission. Ken is a board member of the National Association for Business Economics (NABE) and chairs its quarterly Industry Survey. Among his many publications is "Digging into Construction Data," published in NABE's journal, *Business Economics*. Since 1982, he has co-chaired the Tax Economists Forum, a professional meeting group he co-founded for leading researchers and policy makers among tax economists. He is a member of several other professional organizations for economists.

Ken has a BA in economics from the University of Chicago, an MA in economics from Northwestern University, and has taken advanced graduate economics courses at the Université de Paris, Johns Hopkins and Georgetown.



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