Caltrans: Sole source procurement without checks and balances

The issue

The California Department of Transportation steered business to a company whose vice president was a former high-ranking Caltrans official through a sole source procurement process that does not have the same checks and balances as similar processes for most other state departments and agencies.

Using $40 million in bond money approved by voters in 2006, Caltrans headquarters determined that nine projects to install vehicle detection systems along freeways should use a device created by Sensys Networks, Inc., a Berkeley based company whose vice president, Hamed Benouar, was formerly chief of the Division of Traffic Operations for Caltrans. A 2007 Caltrans memo regarding the Sensys product notes that it is "in the public interest" to buy the product because there is "no other known product of equal or better quality." The Sensys product is a wireless magnetometer device that is embedded in the road and counts traffic as it passes over it by measuring changes in the magnetic field caused by vehicles. Other technologies, including radar and video, are sold to perform the same function. The Committee also has located two other magnetometer devices similar to Sensys, including one that is wireless.

Caltrans officials say they told districts they were free to choose between the Sensys product and radar products, which have been used previously in some Caltrans districts. Committee interviews with officials in multiple districts, however, indicate that headquarters was pressuring districts to buy the Sensys product, and the memo from headquarter does not mention radar products.

Benouar worked at Caltrans between 1989 and 2000. He became executive director of the California Center for Innovative Transportation (CCIT), a partnership between Caltrans and the University of California-Berkeley, in 2002, and joined Sensys in Auguist 2007, the same month the Caltrans-Sensys memo was issued. Benouar was executive director of CCIT when it conducted a 2006 evaluation of the Sensys product that urged Caltrans to buy the product.

The policy question

Caltrans has an internal process to determine if a proprietary product is appropriate that does not require permission from any outside agency. This is not the case with most other state departments or agencies, which must seek approval from the Department of General Services before determining that only one company makes a suitable product for procurement. If federal money is involved, however, Caltrans must receive permission from the Federal Highway Administration, which requires an extensive explanation for why procurement should be limited to one product.

The Committee may wish to consider whether Caltrans has an appropriate policy for determining whether it is in the taxpayers' interest to limit products in state-funded procurement projects.

The outcome

Of the nine projects that were earmarked for Sensys, six ultimately utilized Sensys, one utilized both Sensys and radar projects, and two others used solely radar. Two other projects that were added after the initial memo also used both Sensys and radar. Caltrans spent nearly $40 million, although the bulk of the money went to electrical contractors who bid on the projects to install the devices. The Sensys product is more expensive than radar, according to Committee calculations and a review of vehicle detection products conducted by the Texas Transportation Institute, based at Texas A&M University.

While Caltrans officials say they followed appropriate procedures, internal e-mails obtained by the Committee indicate they began a process to change the way they procure vehicle detection equipment less than one week after meeting with Committee staff regarding the Sensys issue. The new process will not specify any company or technology. Instead Caltrans will prepare a general specification that will allow multiple products to be used as long as they provide the appropriate data desired and meet accuracy expectations.

The hearing

Invited witnesses include:

- Will Bush, Director of the Department of General Services, who will explain general state policy on purchasing proprietary products. DGS' policy does not apply to Caltrans, which has statutory authority to develop its own procurement policies on most projects.
- Will Kempton, Director of the Department of Transportation, who will discuss the department's relationship with Sensys Networks, Inc., and its policy on proprietary products.
- Hamed Benouar, Vice President of Business Development for Sensys Networks, Inc., who will discuss Sensys Networks' history with Caltrans and his history with Caltrans and the company.

Further information in this packet includes:

- A more detailed accounting of Caltrans' process in acquiring the Sensys product;
- The August 2007 memo from Caltrans regarding the Sensys product;
- A brief history of Sensys Networks, Inc.;
- A brief description of the different types of vehicle detection systems available throughout the country;
- A comparison of the processes for buying proprietary products for Caltrans, most other state departments, and the Federal Highway Administration;
- A list of questions Committee members can consider asking the witnesses;
- A potential recommendation for the Committee to consider;
- An agenda.

CALTRANS: SOLE SOURCE PROCUREMENT

The California Department of Transportation (Caltrans) steered business to a company whose vice president was a former high-ranking Caltrans official through a sole source procurement process that does not have the same checks and balances as similar processes for most other state departments and agencies.

Background
In 2006, California voters approved Proposition 1B, a nearly $20 billion bond measure to fund transportation projects. Of that, $4.5 billion was earmarked to relieve congestion on state highways.

Before beginning major construction projects, Caltrans sought to install new, high-tech devices that would collect data on how many vehicles traveled along some freeways. The department has relied on the same antiquated technology to count cars since the 1970s and many of those devices no longer function.

There are several new technologies that can be used to gather traffic volume data, including radar and video (which are placed alongside roads) and magnetometers (which are embedded in roads and detect traffic by measuring the change in the Earth's magnetic field when a vehicle passes over it.) (For more detail, see the page titled "Vehicle detection systems" included in this packet.)

Caltrans decided to use $40 million of Prop. 1B to install new vehicle detection equipment in nine projects in five districts. The projects are located on freeways near Sacramento, Oakland, Santa Rosa, Riverside, Stockton and San Diego.

The memo
On August 10, 2007, Caltrans headquarters released a memo from Robert Copp, chief of the Division of Traffic Operations, to John McMillan, Chief of the Office Engineer that directs the districts to use a vehicle detection device produced by Sensys Networks, Inc., a company based in Berkeley. According to the memo, the use of the Sensys equipment "is in the public interest as there is no other known product of equal or better quality that will perform the same function." (The memo is included in this packet.)

In developing this memo, Caltrans relied on a process spelled out in its Ready to List Guide. The guide provides guidance for the department in conducting public works projects and is developed by the department's Office Engineer. By statute, Caltrans is allowed to conduct its own procurement procedures on public works projects without oversight by the Department of General Services, which handles procurement for most state departments.[1]

Caltrans' Ready to List Guide allows the department to determine that a proprietary product is necessary for a certain project because there is no other product like it.[2] This is a different process than a non-competitive bid, because the proprietary product is embedded in a contract that is competitively bid among contractors. Contractors bid on a project, but then are required to buy and install the specified equipment outlined in the project.

State departments and agencies without the statutory right to conduct procurement would have to receive DGS approval before determining that a proprietary product is necessary. Caltrans is not

[1] California Public Contract Code, Sections 10105 and 10106.
[2] California Department of Transportation. September 2008. "Ready to List Guide." Section 6.10.

bound by those rules. (For more detail, see page titled "Processes for purchasing proprietary products" in this packet.)

According to engineers at several districts, the memo was unusual because districts typically have considerable discretion in determining the types of products they purchase. In fact, the proprietary product process spelled out in the Ready to List Guide is designed for districts who wish to use such a product. According to the guide, district engineers must get approval from district directors and headquarters to buy a proprietary product. There is no discussion in the guide regarding headquarters requiring districts to use a proprietary product.[3]

The Sensys-Caltrans relationship

Sensys Networks, Inc. owes its existence, in part, to Caltrans. Caltrans gave $25,000 in 2002 to researchers at the University of California-Berkeley to investigate the potential that a wireless vehicle detector could be developed to replace the antiquated car counters the department has used. The researchers produced a paper theorizing that such a product could be developed and provided advice on the proper technology.

Sensys was founded in 2003 by two UC Berkeley graduates who had worked on the research. Tapping into funds from several venture capital firms, Sensys developed a wireless magnetometer product that was unveiled in 2005. A Caltrans report on the product notes that Sensys became a profitable company in just three years.

Sensys' Vice President of Business Development, Hamed Benouar, worked for Caltrans from 1989 to 2002, serving as chief of the Rail Division, chief of the Advanced Highway Systems Office, and head of the Division of Traffic Operations. Mr. Benouar left Caltrans to become executive director of the California Center for Innovative Transportation (CCIT) in 2002. CCIT is a partnership between the University of California-Berkeley and Caltrans to "optimize private sector participation in the future of California's vast transportation network."

Mr. Benouar was Executive Director of CCIT in October 2006, when the Center published an evaluation of the Sensys Networks, Inc. wireless vehicle detector. The evaluation concluded, "we recommend that Caltrans writes a generic specification for wireless magnetic sensors to enable procurement by local districts."[4]

Mr. Benouar left CCIT to join Sensys in summer 2007. The Caltrans memo advocating the purchase of Sensys products was written in August 2007. A retired annuitant at Caltrans who worked on the Sensys memo told Committee staff that Mr. Benouar was involved in discussions with Caltrans over the price of the Sensys equipment.

E-mails between Caltrans officials in 2007 show that Benouar was involved in helping the department do business with Sensys while he was still at CCIT. Benouar is cc'ed in several Caltrans e-mails regarding Sensys, and in one, a Caltrans official notes, "I had also heard, weeks ago, that Hamed was going to prepare a spec for us."[5]

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[3] California Department of Transportation. September 2008. "Ready to List Guide." Section 6.10.
[4] California Center for Innovative Transportation. October 2006. "Evaluation of Wireless Traffic Sensors by Sensys Networks, Inc." Page 46.
[5] Fred Dial, Division of Traffic Operations, California Department of Transportation. March 7, 2007 e-mail.

Caltrans' defense
Caltrans' officials argue that the memo is misleading. They say they developed the memo because they wanted to allow districts to choose between radar vehicle detection systems, which had previously been used by the department, and Sensys. The department already had a general specification for radar that could be included in contracts, and the memo was needed to develop a specification for the Sensys product. Thus, the Sensys memo then allowed the five districts involved in the projects to choose between a radar product, which is manufactured by two competing companies, or Sensys.

Internal Caltrans E-mails, however, suggest the department did want to pursue the Sensys product exclusively. (For more detail, see the page titled "Caltrans E-mails included in this packet.)

Caltrans says that it attempted to find other magnetometer devices similar to Sensys to allow for competition between magnetometer devices, but could find none that were suitable for counting traffic along freeways. The department says it contacted one other company, called Nu-metrics, which produces a wireless magnetometer that is somewhat similar to the Sensys product, but determined that the product would not work on California freeways. The Committee spoke with state highway officials in at least two other states – Ohio and Illinois – that use the Nu-metrics device on freeways, however, and neither state has reported problems with the device.

Despite Caltrans officials' insistence that they did not push the Sensys product on districts, Caltrans employees in five districts told Committee staff in interviews that they felt that headquarters was pressuring districts to use the Sensys device, not radar. For example, an employee in District 11 (the San Diego area) said that when his district indicated it wanted to use radar for a project, Hamed Benouar, who had joined Sensys at this time, and a Caltrans headquarters' employee, Ahoura Vahedi, visited the district office together to tout the Sensys product. The employee felt that the visit was a clear signal from headquarters that it preferred districts use the Sensys equipment.

The end result
Of the nine projects listed on the Sensys memo, six ended up using Sensys equipment, one used a combination of Sensys equipment and radar, and two others used radar only. The department received two letters from companies that produce vehicle detection systems complaining that the department had inappropriately given Sensys an advantage, but neither company pressed the issue beyond writing a letter. The Committee has both letters.

Sensys uses its agreement with Caltrans in its marketing as it seeks business in other states and foreign countries. It has now sold its vehicle detection system in 30 states and 20 other countries.

While Caltrans' officials insist they did nothing wrong, they are changing the way they procure vehicle detection projects in the future. Caltrans' e-mails show that the department has begun a process to develop a general specification that would allow contractors to choose among several technologies when bidding on jobs to install new vehicle detection. This process began within one week of the Committee staff's first meeting with Caltrans on this issue.

This process is similar to what some other states and cities have in place. Florida, for example, lists multiple vehicle detection systems, and their prices, in a catalog and allows contractors to choose from among those technologies when bidding on a project. The City of Cedar Rapids, Iowa also does not specify a particular company in one recent proposal for vehicle detection equipment.

The policy question
The Committee may wish to consider whether it is appropriate to allow Caltrans authority to determine, without any outside approval from another department or the Business, Transportation

and Housing Agency, that only one product is suitable for a public works project. Most other state departments require DGS approval.

The Committee could ask Caltrans to amend its Ready to List Guide policies to require permission from either DGS or the BT&H Agency Secretary before the department can conduct this process. This would not be an onerous task, as the policy is infrequently used.

The hearing
Invited witnesses include:

- Representative, Department of General Services, who will explain general state policy on purchasing proprietary products. DGS' policy does not apply to Caltrans, which has statutory authority to develop its own procurement policies on public works projects.
- Representatives, Director of the Department of Transportation, who will discuss the department's relationship with Sensys Networks, Inc., and its policy on proprietary products.
- Hamed Benouar, Vice President of Business Development for Sensys Networks, Inc., who will discuss Sensys Networks' history with Caltrans and his history with Caltrans and the company.

Further information in this packet includes:

- The August 2007 memo from Caltrans regarding the Sensys product;
- A brief description of the different types of vehicle detection systems available throughout the country;
- A comparison of the processes for buying proprietary products for Caltrans, most other state departments, and the Federal Highway Administration;
- Internal Caltrans E-mails relating to this topic
- Potential questions the Committee could ask during the hearing;
- A potential recommendation for the Committee to consider;
- And an agenda.

Contract Administration Core Curriculum Participant's Manual and Reference Guide 2006

3. Public Interest / Cost Effectiveness Findings

References:

- 23 U.S.C. 112
- 23 CFR 635.106(a), 635.204, 635.205, 635.407(a), 635.411(c)

Applicability:

Applies to all Federal-aid highway construction projects.

In the subsequent sections, several requirements (e.g., use of a proprietary product, use of public equipment, or contract award based on other than competitive bidding} may be waived under specific conditions if it is found to be in the public interest or cost effective. These findings should be used sparingly since such a determination is an acknowledgment that the needs of the public will be better met by not following the general rules. Since the general requirement addresses a specific issue or concern, waiving that requirement should be done only after careful consideration of the effect or precedent that will be set.

The actual cost effectiveness / public interest finding will consist of a written document outlining the basis for the request and any supporting documentation such as a cost/benefit analysis; discussion of product compatibility; logistical concerns; etc.

The cost effectiveness / public interest finding is generally approved by the Division Administrator for Interstate and NHS projects, and the appropriate STA official for all other projects; however, the specific conditions of approval authority should be described in the oversight agreement between the FHWA Division Office and the STA. This agreement should address the appropriate approval levels for public interest findings related to different oversight levels. Note that some issues may require the DA's concurrence regardless of oversight levels; among these issues are DBE requirements, and method of construction.

Guidance concerning the content of stewardship agreements can be found in Mr. Ptak's August 20, 1998 memo titled, "Implementing Guidance - Project Oversight under Section 1305 of the Transportation Equity Act for the 21st Century (TEA-21) of 1998." (see http://www.fhwa.dot.gov/tea21/oversite.htm).