

## STAFF SUMMARY RECOMMENDATION

### CALIFORNIA INSTITUTE OF TECHNOLOGY

#### Second Amendment to Resolution Number 262

June 30, 2011

PRIOR AMOUNT APPROVED: \$100,000,000 (outstanding at any one time)  
PRIOR APPROVAL DATES: September 25, 2008, June 25, 2009  
LOCATION: Pasadena, CA, Los Angeles County

---

**PURPOSE OF THE AMENDMENT:** California Institute of Technology (“Caltech”) seeks Authority approval to amend the authorized project list, to execute a Dealer Agreement and amend the Loan Agreement.

**BACKGROUND:** At the September 25, 2008 CEFA board meeting, the Authority approved Resolution Number 262, authorizing the issuance from time to time of tax-exempt and taxable commercial paper notes in an aggregate principal amount not to exceed, at any one time, \$100,000,000. Proceeds of such authorized commercial paper notes (the “Notes”) were authorized to be used to fund various capital projects. Caltech returned to the Authority on June 25, 2009 to amend its authorized project list.

Caltech issued \$5 million in commercial paper notes in 2009, which have since been repaid. No notes are currently outstanding.

At this time, Caltech would like to revise the authorized project list to contain only the projects, attached hereto as Exhibit A. Several of these projects have been previously approved.

*Environmental Benefits:* It is Caltech’s policy to design, build, and pursue certification of all new project buildings at a LEED Silver level or higher. Construction projects will be completed with sustainable design to include high efficiency building systems, green landscape and long term cost effectiveness. Renovation projects will improve energy efficiencies, reduce energy and emissions, and upgrade building systems to more efficient components.

Pursuant to Section 94212(b) of the Education Code, Caltech provided documentation indicating these projects are in compliance with the California Environmental Quality Act or are not projects under that Act.

Caltech also requests the Authority execute a Dealer Agreement which sets forth the agreements and covenants between Goldman Sachs & Co., as dealer for the Notes, the Treasurer, the Authority and Caltech.

The Second Amendment to Resolution No. 262 also authorizes the execution and delivery of an amendment to the Loan Agreement relating to the Notes. The amendment would

change the Loan Agreement so that projects authorized to be financed or refinanced from Note proceeds are determined based on reference to the Authority's resolutions from time to time, rather than being specifically enumerated in the Loan Agreement. The change permits modification of the eligible project list through resolution of the Authority and eliminates the need to amend the Loan Agreement with each modification of the project list.

The Second Amendment to Resolution No. 262 does not contemplate any other substantive changes.

**RECOMMENDATION:** Staff recommends the Authority approve the Second Amendment to Resolution No. 262.

**EXHIBIT A**  
**Projects Proposed to be Financed and/or Refinanced:**

**Undergraduate Housing Renovation, Construction, and Temporary Housing**

Creation of new student housing by restoration and/or remodeling of the existing student housing and/or new construction elsewhere on campus. Also included in this project would be temporary housing, associated dining remodeling, and infrastructure upgrades.

**Chemistry Building**

Construction of a 60,000 square foot Chemistry and Chemical Engineering Laboratory.

**Infrastructure Costs Related to Research Buildings**

Infrastructure upgrades to support the capital construction of new research buildings, including a new substation, chiller plant and distribution piping upgrades and tunnel extension, sewer, water, steam storm drains and utility connections.

**Miscellaneous Deferred Maintenance and Renovation Projects**

Maintenance and renovation projects including fire protection upgrades, campus-wide steam and compressed air distribution system upgrades, chilled and domestic water distribution system upgrades, campus wide lighting upgrades, electrical substation and electrical distribution system upgrades, campus building and utility plant mechanical systems upgrades and elevator modernizations.

**Laboratory Renewal Projects**

Facilities renewal projects and the rehabilitation or modernization of laboratory space for new and continuing faculty, including the renovation of existing space to accommodate the office and lab for new professorial appointments.

**Student Center**

Renewal of the Student Center will provide facilities for a wide array of student activities including musical performances, dance space, recreation and leisure space. Also includes the renovation of the Winnett Student Center.

**Linde +Robinson Laboratory Renovation**

Renovation of the Robinson Laboratory as a modern facility for research and instruction in global environmental science.

**Biology Laboratory Renovations**

Modernization of spaces in Kerckoff, Church, Alles, Beckman Behavioral Biology, Beckman Institute and Braun to accommodate the re-alignment of existing faculty into affinity groups performing similar kinds of research.

**Humanities and Social Sciences Building**

Design and construction of the new Center for Business and Economics Management.

**Voice & Data Networking Upgrade**

Improvements to voice and data networks, including targeted replacement or upgrade of telephone components; four year life cycle replacement of network infrastructure including switching and routing components, wireless access devices, and optical networking components; remediation of voice and data facilities; and business continuity and disaster preparedness of critical communications facilities.

### **Jorgensen Laboratory Renewal**

Renovation of the Jorgensen Laboratory to house both the Resnick Sustainability Institute and the Joint Center for Artificial Photo-synthesis.

### **Tolman-Bacher House Renovation**

Renovation of the Tolman-Bacher House to provide an on-campus space for the Keck Institute of Space Studies.

### **Thomas Laboratory Renovation**

Rehabilitation of the Franklin Thomas Laboratory of Engineering, to upgrade the building and its systems to meet the current and future research needs of the Mechanical and Civil Engineering groups.

### **On Site Generation Facilities**

Development of on-site generation capability, including funding of ancillary work associated with generation facilities. This work will include a variety of site work including tree trimming, high voltage lines, switching and transformers, removal of roof obstructions, purchase and installation of metering equipment, and excavating and providing pathways for conduits.

### **Thermal Energy Storage**

Construction of a chilled water storage tank to take advantage of reduced electrical rates.

### **Research Computing Facility**

Creation of new or expansion of existing computing capacity on campus, including up to 2MW of computing capacity and 15,000 sq. ft. of space to house the IT gear and the infrastructure to support it.

### **Energy Conservation Projects**

Implement projects intended to reduce energy consumption, greenhouse gas emissions and other global warming potential emissions, including lighting retrofits and upgrades, purchase of energy star equipment, retro-commissioning projects, LEED EB projects, and upgrading utility equipment to high efficiency equipment.

### **Major Utility and Distribution System Upgrades**

Replacement and improvement to major utility systems that support entire campus or multi-building portions of the campus, including chillers, boilers, high voltage distribution and cogeneration equipment with associated distribution conductors, piping, controls and pumps.

### **Biological Sciences Complex**

Construction of a new biological sciences building which may consist of several buildings with functions needed to support a wide array of biological science research endeavors.

### **Enterprise Resource Planning Systems**

Upgrade to Caltech's payroll, timekeeping, and fundraising systems to the latest standards, including implementing new or updated payroll, timekeeping and fundraising software and/or systems, including updating the interfaces between these systems and updating and expanding a variety of pay elements used in the payroll process.