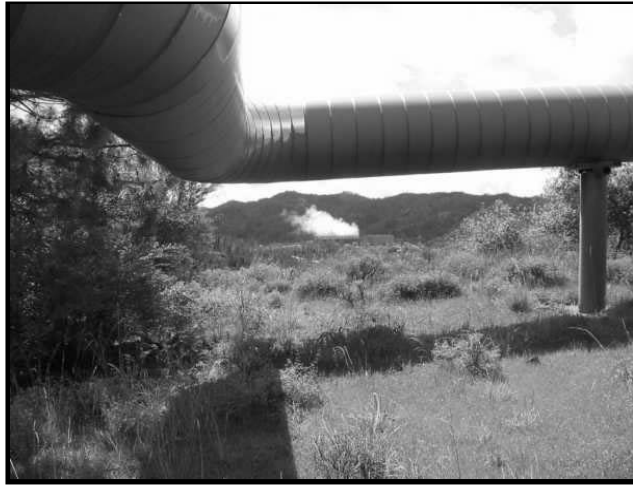


# Geysers Steamline

GEYSERS GEOTHERMAL ASSOCIATION

VOLUME XXI, NUMBER 2

Summer 2005



## Regrowth at The Geysers after the Fire.

Photo credit: Charlene Wardlow, Calpine Corporation

## Geysers Fire Cause Released

*Editor's Note: This picture and article can also be seen on our website at <http://www.thegga.org>. Check it out!*

The California Department of Forestry and Fire Protection's Sonoma-Lake-Napa Unit announced February 22, 2005 that the Department's investigators have released their findings as to the cause of last September's Geysers Fire. The fire burned 12,525 acres in Lake and Sonoma Counties and cost over \$14,000,000 to suppress.

Investigators say that a malfunction in an electrical circuit ignited grass, and the resulting fire quickly spread to surrounding vegetation. The circuit provided power to pumps and other equipment along a steam line operated by the Calpine Corporation. The crew of a CDF helicopter taking off from the Sonoma Air Attack Base in Santa Rosa initially reported the fire. The helicopter, which arrived at-scene nine minutes later, reported the fire at three acres. Within fifteen minutes, the fire had grown to forty acres.

Due to the ongoing investigation, no further details are available for release.

*~Eric Hoffmann, California Dept. of Forestry & Fire Protection, February 22, 2005*

## Summer GGA BBQ Join the Fun on June 23!

Reserve your spot today for the GGA Annual Membership Summer BBQ on Tuesday, June 23 11:30 a.m. at the Calpine Geothermal Visitor Center located off Highway 29 at Central Park Road in Middletown.

The Visitor Center will be open that day so if you would like to take a tour of the West Ford Flat Power Plant please call for a seat on the bus on either 10:00 a.m. or 2:00 p.m. tour: Call 707-987-4270 to reserve a seat on the tour bus.

The tour takes approximately 1 hour 15 minutes.

John's traveling BBQ will once again cater this event. Top sirloin with all the "fixins" will be served at 12 noon. The cost is \$20.00 per person.

Please make your reservation with Charlene Wardlow, Calpine, at 707 431-6133 or e-mail at [charlene@calpine.com](mailto:charlene@calpine.com) no later than Thursday, June 16.

## Calpine's Metcalf Power Plant in Northern California Online 600-Megawatt Facility Will Help Satisfy Projected Record Demand for Power

Calpine Corporation's (NYSE: CPN - News) Metcalf Energy Center has begun operation and is delivering up to 600 megawatts of power to the northern California power market. Located in San Jose, Metcalf is the first large power generator in Silicon Valley. It will be the cornerstone of energy supply and reliability for the region.

"The Metcalf Energy Center is an example of cutting edge efficiency, highlighting Calpine's vast experience in power plant construction and operation," said Calpine Chairman, President and CEO Peter Cartwright. "During development of the project, environmental groups — including local chapters of the Sierra Club, the American Lung Association — as well as the NAACP, supported Metcalf, further validating that power generation does not have to come at the expense of the environment."

*Continued on page 8*



## *President's Message*

By Ron Sues

### **Having Fun Yet?**

There is an old axiom that states that "time passes quickly when you are having fun!" Webster defines fun as providing entertainment or enjoyment. The truth of this axiom is something with which I can certainly identify. During my brief tenure as President of the Geysers Geothermal Association, time is passing quickly, and I am definitely having fun because of the members of the GGA!

Let me count the ways that the fun expresses itself for me. It was great fun to recount some Geysers history along with Tom Box and Ted Wilmsen at the GGA's Spring Dinner. The evening passed much too quickly, so we all must have been having fun. The Geysers is so rich with intriguing stories and adventures that create the depth, breadth, and color of The Geysers history and development. We'll have to have another event where more accounts of old would paint pictures of The Geysers historical past. This would be entertaining and enjoyable.

Encountering and adapting to the changing business environment at The Geysers certainly has had its moments of fun as viewed from the perspective of the GGA. Simply dealing with how to restructure the workings of the GGA so as to facilitate the GGA's continuing fulfillment of its mission is an ongoing work in progress. And that is the fun of it! A case in point is adapting the Safety, Health, Environment, and Legislative Committees into the combined SHEL Committee. This exercise is stretching us. The GGA Executive Committee endeavors to find the optimum manner and mode that will enable the GGA to effectively and efficiently inform and educate its membership on pertinent issues in these respective areas. This endeavor approaches the desired goal, and the goal has not yet been achieved. The fun of it all is to see different groups and individuals contribute insights, suggestions, and then take a course of action to see if it works the way that is best for all.

The GGA scholarship program really captures the core ideal of GGA mission. It is always fun for the scholarship selection subcommittee to review the many applications and then choose the three winners. There is always an abundance of deserving seniors who apply for the scholarships. This is the crowning activity of the GGA. Many members contribute to the program's success with dedicated willingness.

*Continued on page 5*

## ***GRC Announces Annual Meeting September 25-28***

The Geothermal Resources Council announces their annual meeting to be held September 25-28 at the Reno Hilton Conference Center in Reno, Nevada.

Co-sponsored by the U.S. Department of Energy and contributions by GRC Corporate and Individual members, this year's Annual Meeting theme is Geothermal Energy—The World's Buried Treasure. With its Technical Program and other events, the GRC 2005 Annual Meeting will also provide a unique opportunity for exhibitors to showcase their projects, equipment and services at the Geothermal Energy Association (GEA) Trade Show.

The GRC 2005 Annual Meeting will feature distinguished Keynote Speakers at its Opening Session, as well as Technical and Poster sessions on a broad range of timely geothermal resource and development topics. This year's event will also offer Technical Workshops; Field Trips to nearby geothermal projects; the GRC Banquet and Annual Awards Luncheon; and the GRC Golf Tournament.

### **For more information, contact:**

Geothermal Resources Council  
P.O. Box 1350  
Davis, California 95617 • USA  
Phone (530) 758-2360  
Fax (530) 758-2839  
E-mail: [grc@geothermal.org](mailto:grc@geothermal.org)

## **CEC Paper on California Geothermal Potential Available**

A staff paper on geothermal resource potential for the May 9, 2005, Committee Workshop on Renewable Resource Potential in California and Interstate Renewable Resources is available. It is CEC publication # CEC-500-2005-070. It is accessible at [http://www.energy.ca.gov/2005\\_energypolicy/documents/index.html#050905](http://www.energy.ca.gov/2005_energypolicy/documents/index.html#050905).

# Calpine Launches Strategic Initiative to Accelerate Debt Reduction and Increase Cash Flow

## *Program Includes Asset Sales and Operating Cost Reductions*

Calpine Corporation rolled out an aggressive strategic initiative today aimed at dramatically enhancing the company's financial strength. The program is targeting accelerated debt reduction of more than \$3 billion by the end of 2005, \$275 million of annual interest savings, and approximately \$200 million in annual operating cost reductions.

The program will strengthen the company's core North American power assets and enhance Calpine's financial flexibility by:

- **Optimizing the Power Plant Portfolio** — Selling certain power and gas assets to reduce debt, lower annual interest cost and increase cash flow. In addition to previously announced potential asset sales, the company is targeting the sale of up to eight plants.
- **Reducing Operating Costs** — Decreasing operating and maintenance costs and lowering fuel costs to improve the operating performance of power plants, significantly boosting operating cash flow and liquidity.
- **Accelerating Debt Reduction** — Reducing total debt by more than \$3 billion, or 16%, by the end of 2005, one year earlier than planned. Additional significant debt reductions are planned for 2006 and beyond.

"Calpine has set an aggressive and timely program to strengthen our financial and competitive position," stated Calpine Chairman, President and CEO Peter Cartwright. "To operate effectively in a business environment that has changed dramatically over the last few years, we are reviewing all options to provide near-term results, while continuing to focus on long-term value. We have already recognized several attractive opportunities, which we expect will improve our operating cash flow.

"We are refocusing and streamlining our business to take advantage of market opportunities as industry and economic fundamentals continue to improve in several of our key power regions. By taking these decisive actions, we're positioning Calpine to best capture the strong cash and earnings potential of our efficient, gas-fired and renewable, geothermal power fleet. The program we're presenting today is in its early stages. It will serve as a blueprint for a new and more powerful Calpine," Cartwright concluded.

### PROGRAM OVERVIEW

The program is designed to improve the value of Calpine's core power plant assets and strengthen its balance sheet.

#### *Optimizing the Power Plant Portfolio*

**Asset Sales** — Calpine is pursuing opportunities to add value to its portfolio, reduce corporate debt and increase cash flow through sales of both its gas assets and certain of its power assets.

\* Calpine is finalizing its review of bids received for the sale of its 1,200-megawatt Saltend Energy Centre in the United Kingdom. The proceeds generated from such a sale are expected to be used to redeem \$620 million of preferred equity related to the project, with the balance to be used in accordance with the company's existing bond indentures.

\* As announced last week, Calpine is evaluating strategic alternatives for its U.S. oil and gas assets, including the potential sale of all of or a portion of these resources. The proceeds generated from such a sale are expected to be used in accordance with the company's existing bond indentures.

\* The company is also evaluating the sale of up to eight other power plants to capture stronger market valuations.

**Mothball Plants** — Calpine is considering temporarily shutting down power plants with negative cash flow, until market conditions warrant start-up, to further reduce costs and more effectively focus the company's financial and sales resources.

*Continued on page 5*

# GGA BUSINESS DIRECTORY

## Support the businesses that support the GGA

The following businesses are Corporate Members who are the backbone of the GGA.  
Keep our organization strong by calling on them when you need the following services:

### CONSULTANTS & ENGINEERS

#### Blaydes and Assoc.

• Paula E. Blaydes  
1275 Fourth Street, #214  
Santa Rosa, CA 95404  
707 537-8727

#### Carlenzoli and Associates

• Leroy E. Carlenzoli  
325 Tesconi Circle  
Santa Rosa, CA 95401  
707 542-6465

#### Carlile-Macy

• Bruce Jarvis  
15 Third Street  
Santa Rosa CA 95401  
707 542-6451

#### Data Instincts

• Mark Millan  
9481 Vincrest Road  
Windsor CA 95492  
707 836-0300

#### EGS, Inc

• Paul Brophy  
725 Farmers Lane, Suite 8  
Santa Rosa CA 95405  
707 544-0955

#### Kleinfelder

• Steve Korbay  
2240 Northpoint Pkwy  
Santa Rosa CA 95407  
707 571-1883

#### MHA Environmental Consulting

• Laurie McClenahan  
4 W. Fourth Ave, Ste 303  
San Mataeo CA 94402  
650 373-1200

#### Nick Voegtly Safety & Loss Control

• Nick Voegtly  
11725 Loch Lomond Rd  
Middletown CA 95461  
707 349-7233

#### Ronald E. Suess Company (RES Co.)

• Ronald E. Suess  
1275Fourth St., No. 105  
Santa Rosa, CA 95404  
707 541-0976

#### Roger Proett Company

• Roger Proett  
935 Baird Road  
Santa Rosa, CA 95409  
707 539-7238

#### Tecton Geologic, Inc.

• Alan Frazer  
5610 Skylane Blvd., Suite A  
Santa Rosa, CA 95403  
707 571-1700

#### ThermaSource, Inc

• Louis Capuano  
P.O. Box 1236  
Santa Rosa, CA 95406  
707 523-2960

#### Thomason Mechanical Corp.

• Bruce Perry  
2150 E. 37th Street  
Vernon, CA 90058  
310 639-3523

#### Trident Environmental & Engineering

• Joe Martin  
110 L Street  
Antioch, CA 94509  
925 706-6931

#### Two Phase Engineering

• Doug Jung  
3209 Franz Valley Road  
Santa Rosa, CA 95405  
707 523-4585

#### Veizades & Assoc. Inc.

• Harry Veizades  
One Hallidie Plaza, Ste 838  
San Francisco CA 94102  
415 394-8855

### DRILLING SERVICES

#### Bill's Casing Tong Service

• Neil O'Shaughnessy  
P.O. Box 1723  
Marysville, CA 95901  
530 743-5424

#### Boart Longyear Co.

• Steve Barnwell  
2745 W. California Ave.  
Salt Lake City, UT 84104  
801 973-6667

#### M-I Drilling Fluids

• Boyd Green  
P. O. Box 1369  
Cobb CA, 95426  
707 928-4676

#### Obie's Drill PipeService, Inc.

• Obie Sanders  
P.O. Box 647  
Middletown, CA 95461  
707987-2001

#### Weatherford

• Rick Benton  
1000 Church Road  
Rio Vista CA 94571  
707 374-6493

### EQUIPMENT & MATERIAL SUPPLIERS

#### C-K Supply, Inc.

• Gene Kirkendall  
P.O. Box 550  
Lakeport, CA 95453  
707 263-7700

#### Jackson Equipment Co

• Wayne Jackson  
P.O. Box 669  
Middletown, CA 95461  
707 987-3660

#### Jim Jonas, Inc.

• Jonas Oil  
• Jim Jonas  
P.O. Box 277  
Lower Lake, CA 95457  
707 994-6535

#### Mahl Tool Tek, Inc

• Dan Mahl  
P.O.Box 2520  
Mill Valley CA 94941  
414 388-7494

#### Northern Energy

• James Gunnink  
285 Kinley Drive  
Healdsburg, CA 95448  
707 433-5581

#### Petrochem Inc.

• Brian Benson  
110 Corporate Place  
Vallejo CA 94590  
707 644-6968

#### Sierra Crane Company

• Doug Burgard  
2530 Burgard Lane  
Auburn, CA 95603  
916 663-3794

#### Rain for Rent

• Zane Smith  
390 W. Kentucky Ave.  
Woodland CA 95695  
530 662-1024

### STEAM SUPPLIERS & POWER PLANT OPERATORS

#### Calpine Corporation

• Charlene Wardlow  
10350 Socrates Mine Rd  
Middletown, CA 95461  
707 431-6000

#### Northern California Power Agency

• Steve Eney  
P.O. Box 663  
Middletown, CA 95461  
707 987-4033

### SPECIAL SERVICES

#### A-1 Milmac

• Kevin Dunne  
460 Calbot Road  
San Francisco, CA 94080  
650 871-1712

#### Action Sanitary, Inc.

• Jerry L. Campo  
P.O. Box 492  
Lower Lake, CA 95457  
707 994-5068

#### Alliance Cooling Products

123 West North Street  
Healdsburg, CA 95448  
707 431-0108

#### Babin & Seeger, LLP

• Martin L. Seeger IV  
3550 Round Barn Blvd  
Santa Rosa, CA 95403  
707 526-7370

#### Geothermal Resources Council

• Ted J. Clutter  
2001 Second St., Suite 5  
Davis, CA 95616  
530 758-2360

#### Morgan Stanley

• Leon Ballew  
3558 Round Barn Blvd,  
Suite 201  
Santa Rosa, CA 95403  
707 524-1000

#### Northern Industrial Construction

• Frank Karp  
P.O. Box 1352  
Kelseyville CA 95451  
707 279-0381

#### Turbocare

• Dave Stenson  
184 Malbert Street  
Perris, CA 92570  
800 659-5908

#### Univar

• Dave Wiley  
2256 Junction Avenue  
San Jose, CA 95131  
800 659-5908

#### Valley Engineers, Inc.

• Bruno Dietl  
P.O. Box 12227  
Fresno CA 93777  
559 237-9173

Continued from page 3

## Calpine's Strategic Initiative

**Credit Enhancement** — The company is in discussions with a leading financial institution to form a partnership that will lower its collateral requirements and establish a significant third party customer business. The combination of Calpine Energy Services' people, systems and processes, and the credit and financial resources of an investment grade financial institution, will enable the partnership to provide customers across the energy industry with unique products, services and energy solutions.

### **Reducing Operating Costs**

Through technological innovations and other programs, Calpine is enhancing the operating performance of its power plant fleet and is working to reduce its operating costs by approximately \$200 million per year:

**Self-Perform Maintenance** — Calpine is in negotiations to terminate all remaining long-term maintenance agreements. This will allow the company's plant and turbine maintenance groups to provide major maintenance and component and parts repairs at considerable cost savings.

**Reduce Off-Peak Operating Losses** — Calpine plans to incorporate fleet-wide initiatives, some of which include innovative components that it has developed to reduce off-peak operating losses, resulting in considerable fuel cost savings. Further promoting this effort, the company's manufacturing and parts components subsidiary, Power Systems Manufacturing (PSM), recently installed its new combustor system, Flamesheet, at a Calpine plant to increase the operating range of the gas turbines while meeting the environmental permitting requirements.

**Reduce Heat Rate** — Calpine will continue to incorporate fuel efficiency technologies fleet-wide to lower its annual fuel costs. To capture these cost savings, Calpine is targeting up to a 4% reduction in fuel costs through incremental improvements in power plant heat rates. For example, at Calpine's 263-megawatt Rumford Power Plant, the company recently installed and tested PSM proprietary parts and low-emissions systems, and customized plant operating procedures, resulting in a 2% heat rate improvement that could provide annual savings approaching \$1 million at the plant.

### **Accelerating Debt Reduction**

Through this program of asset sales, credit enhancement, and fuel and operating cost reductions, Calpine is accelerating by one year its plans to repurchase more than \$3 billion of corporate debt by the end of 2005. This aggressive debt reduction program will continue in 2006 and beyond.

Calpine Chief Financial Officer Bob Kelly stated, "Our number one financial priority is de-levering the balance sheet to bring it in line with the current and future power markets and the related spark spread-generating capability of our modern fleet. This program is the first step toward achieving our long-term target of total debt equal to six times EBITDA, as adjusted(1). With the new financial focus and power initiative outlined today, we expect to significantly strengthen our balance sheet, lower our annual interest payments and improve our debt coverage ratios."

~Calpine press release  
May 25, 2005



## GGA President Note:

Given this program's importance to the GGA, it seems entirely appropriate that the annual scholarship awarded to a son or daughter of a local geothermal industry employee be named in memory of GGA charter member, Fred Haley. The GGA's taking this action was far more than fun. It was meaningful, fulfilling, and natural to honor one of our own and to pass along this honor to deserving students in perpetuity.

So many more GGA actions and activities are enjoyable. The annual BBQ is an activity that's fun for everybody. I know it is for me, and I'll look forward to seeing you there. We will all have a great time because, as stated above, "time passes quickly when you are having fun!" Before you know it, the GGA BBQ will be history, so do not miss this annual event!



Fred Haley  
 \$1000  
 Memorial Scholarship

*Maia Wagner*

Kelseyville  
 Senior High School  
 Kelseyville

Maia Wagner plans to major in Chemistry at California Polytechnic State University, San Luis Obispo next fall.

She graduated third in her class with a GPA of 4.09.

Maia was a scholar athlete when she played volleyball, attended District 5130 Rotary Interact conference and Rotary Youth Leadership Awards camp. She is the president of the California Scholarship Federation club and was chosen Girl's State alternate during her junior year.

Maia is the daughter of Rachel Woodruff. Rachel is employed by Calpine Corporation at their Geysers Geothermal Facilities since June 1999. Initially a Royalties Specialist with primary responsibility for calculation and payment of all royalty obligations, Rachel is currently an Accounting Supervisor in charge of all Accounts Payable functions in addition to all royalties.

In addition to the GGA scholarship Maia was the recipient of a Calpine scholarship as well as two from local service organizations, Rotary and Beta Sigma Phi. She also received academic awards in foreign language, math and science.

Maia says, "All in all I have been fortunate in my life, especially when it comes to my education. It enabled me to be accepted in my dream school, and pursue an even better education. Without my parent's motivation and encouragement, and some wonderful teachers that I have had, none of it would be possible, and I owe them the utmost appreciation and gratitude. I love my life here in Lake County because I have the most wonderful family and friends, but I could not be more excited and ready to move on and begin my college career."

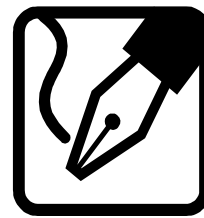


## 2005 GGA Scholarships

The GGA scholarship program for 2005 marked the 20<sup>th</sup> straight year that the GGA recognized outstanding graduating seniors from Sonoma and Lake Counties. Special thanks go to the GGA membership for their ongoing, generous support of this program. The scholarship was initially conceived as a means to increase recognition for The Geysers and its vital role in the local community. Steve Eney chaired this year's committee and Ted Wilmsen, Kathy Eney and Charlene Wardlow joined him for the difficult task of picking three winners from the many qualified applicants.

What keeps the scholarship program going year after year is the recognition that the local community plays a vital role in supporting The Geysers and there is no better way to show our gratitude and support of the local community than by recognizing a few of our outstanding graduating seniors. The GGA Scholarship Program has grown to become a part of the local community, and one of the outstanding, on-going contributions of the GGA.

The GGA Executive Committee is pleased to award the first Fred Haley Memorial Scholarship of \$1000 to Maia Wagner from Kelseyville High School. Her mother, Rachel Woodruff is employed by Calpine Corporation.



**March 5, 2005**

**What a thoughtful and wonderful honor to name the GGA scholarship in memory of my husband Fred Haley. He would be so proud of this special memorial since it is in a field he loved and believed in so much. Many thanks.**

**Sincerely,  
 Peggy Haley**

GGA Scholarship

\$500

Lake County

*Gainyoon Chao*

Upper Lake  
Senior High School  
Upper Lake

Gainyoon Chao is valedictorian of her class, an officer in Student Council, Drama Club, Visual and Performing Arts Club, California Scholarship Federation and Academic Decathlon.

She is active in Girl Scouts and Lake County Youth Orchestra. Gainyoon has had leadership roles in Youth Environmental Leadership Conference, Bridges Senior Weekend, Rotary Youth Leadership Award Camp, and Asian Pacific Youth Leadership Project.

Gainyoon spends summers helping her parents on their farm, volunteers at the animal shelter and tutors math. She is fifth of ten children and will be the second of her family to attend college.

Gainyoon plans to major in the field of science and is currently deciding between UC Berkeley and CSU Long Beach.

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### ***In Memorium - Thomas R. Flynn***

The Geothermal Community mourns the loss of Thomas R. Flynn. He passed away on Monday, April 11. Tom was a long time GGA board member.

Thomas Robert Flynn was born on December 9, 1915, in Hartford, CT. He grew up in Los Angeles, CA, and attended the University of California, Los Angeles for two years, before transferring to the University of California, Berkeley. He graduated from UC Berkeley in 1939, with a Bachelor of Science in Civil Engineering. While attending UC Berkeley Tom met his future wife, Martha Johnston. Tom was an accomplished Construction Engineer, and the President of Valley Engineers, in Fresno, CA. He began his career in construction in 1939, with the Tidewater Associate Oil Company, now Getty Oil/Texaco.

Tom received a Bronze Star for Meritorious Service in May of 1945 and was also awarded a Bronze Star with Oak Leaf Cluster in June of 1945, for heroic achievement. He was a fiercely patriotic man who was very proud to have served his country. After the war he returned to California, and settled in Bakersfield to continue his construction career. In 1956, he, Martha, and his two children moved to Fresno, where he joined Valley Engineers, Inc. Tom was a generous and active member of his community and will be truly missed.

GGA Scholarship

\$500

Sonoma County

*Claire Shubert*

Healdsburg  
Senior High School  
Healdsburg

Claire Shubert has been accepted into the Mechanical Engineering program at Cal Poly, San Luis Obispo. She has interned at E & M Electric and Machinery, Inc. using AutoCAD to draw the layout of machines and conveyor belts.

She is active in 4-H and has been awarded the Gold Award in Girl Scouts, their highest honor. Claire has earned the Governor's Scholarship Award, President's Student Service Award, Prudential Award Candidate, and Press Democrat Award - Ecology Nominee.

Claire ran the 100m, 200m and 4x 100 relay in track in addition to helping assist the coaches of the Junior High track team.

She also is fond of the Fine Arts Department, especially ceramics. Claire is entered into the AP Studio Art class.

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### **GGA Mission Statement**

*The GGA is dedicated to dealing with issues related to the geothermal industry at The Geysers and serving as an educational and exchange forum for our members. We also strive to promote public understanding of the contributions our industry makes to Lake and Sonoma Counties and the State through working committees set up to address health, safety, legislative and environmental issues.*

*Continued from page 1*

## **Calpine Metcalf plant online**

Metcalf is one of two Calpine natural gas-fueled power plants that will come online in California this summer. The first phase of Calpine's Pastoria Energy Center began operating last month and, by the end of this month, the facility will be supplying 750 megawatts to Southern California Edison's transmission system. Together, the projects will increase Calpine's California project portfolio to 41 power plants and more than 5,250 megawatts. Taken as a whole, Calpine's projects produce enough electricity to satisfy the power needs of more than five million California households.

"Calpine has long considered itself a partner with the State of California in developing innovative and environmentally responsible energy solutions for the people of California," Cartwright added. "Metcalf is Calpine's California flagship project and it reflects our commitment to keeping the state's lights on. More than six years in the making, Metcalf is also a testament to Calpine's vision and the determination of Calpine's people to see it through to successful completion."

Calpine's new facilities are coming online at a time when California is once again facing electricity supply challenges. In a report issued this spring, the California Independent System Operator (California ISO) predicts record power demand will occur in July and August, eclipsing last year's demand record by more than 1,000 megawatts. The California Energy Commission

has issued similar projections and expressed concerns about power supplies as well as transmission constraints.

Metcalf also helps address regional energy challenges. The California ISO has stated "... the Bay Area, in particular the San Jose area, is among the most generation deficient areas in the state ..." and that "... Metcalf will provide substantial reliability benefits." In fact, of the estimated 2,200 megawatts that are needed to meet peak power demand in the San Jose area, less than a third are generated locally. Metcalf specifically addresses this imbalance and reduces the vulnerability of the San Jose and Silicon Valley electrical system.

The Metcalf Energy Center makes use of advanced turbine technology, and the project's "combined-cycle" design allows Metcalf to consume up to 30 percent less natural gas as compared to older power plants in the region. This improvement in operating efficiency means that less fuel is burned and less greenhouse gas is emitted per megawatt generated compared to coal-fired or older gas-fired power plants.

Calpine Energy Services, Calpine's power marketing management arm, will market electricity from the facility through a variety of long, intermediate, and short-term contracts. Prospective buyers may include Pacific Gas and Electric Company as well as energy service providers, retail customers, and municipal utilities.

*~Calpine press release June 3, 2005*

*Published three times  
a year by the  
Geysers Geothermal  
Association*

**Editor:**  
Kathy Eneedy

**The Geysers Steamline**  
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