altergy systems

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California Energy Commission
1516 Ninth Street, MS-34
Sacramento, CA 95814

Dear Commissioners:

Re: DOCKET No. 02-REN-1038 – Renewable Energy Program
Business Meeting RE: Revision of Emerging Renewables Program Guidebook

This letter is submitted by Altergy Systems, a California corporation, in response to the proposed Emerging Renewables Program ("ERP") Draft Guidebook, Eleventh Edition (the "Guidebook").

Altergy respectfully requests that the Commission amend its proposed Guidebook as follows:

1. **The Guidebook proposal that no single manufacturer or retailer may claim more than 25% of the annual funding allocation for the ERRA should be dropped or, alternatively, provide that no one end user may claim more than 25% of the annual funding.**.

This provision is an unreasonable and burdensome regulation that **contravenes the express dictates of Governor Brown and would harm California's manufacturing base, and stand in the way of job creation**. It also ignores economic realities with regard to how fuel cells are manufactured and marketed.

> "For the past hundred years, California's economy has been built on the success of the manufacturing industry. From the development of mechanized agronomy at the end of the 19th century, to the role of aerospace and the dominance of computers and software in the 20th, . . . California's manufacturers have been pioneers in creating not only businesses and jobs but also whole new industries. . . . [M]anufacturing—both traditional and high-tech—still drives California's economy in many ways, but the state is losing ground to other states and nations because of its regulatory climate, tax burden, and reputation as a difficult and costly place to do business." (Manufacturing 2.0, A More Prosperous California, Milkin Institute, June 2009)

What if California in the 1960s adopted a rule that no more than 25% of the computers sold in California could have microprocessors from any one manufacturer? Intel, the most successful microprocessor manufacturer in history, with an 83% market share,[1] would never have achieved the levels of job creation it did, and the computer manufacturing industry would never have made its historical substantial contributions to the California economy.

Just as Intel's microprocessors power many computers, Altergy's revolutionary fuel cell engines ("FCEs") power many fuel cell systems. Like Intel's microprocessor, Altergy has designed a technologically superior FCE. That superiority is just starting to manifest itself in the ERP.

1 AMD vs Intel - Market Share and Revenue Comparative Study , March 3, 2011.

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For more than 12 years, no fuel cell company filed an R1 request for rebates under the ERP. Altergy's breakthrough technology has changed that. In 2010 Time Warner purchased an Altergy fuel cell system and applied for ERP rebates. A long line of customers purchasing Altergy systems were preparing to request ERP rebates when the suspension was imposed. Those customers include:

- California's fasted growing telecommunications carrier with more than 2 million customers (2,489 systems to be manufactured and deployed in California);
- Another national telecommunications carrier (1,413 systems to be manufactured and deployed in California;
- A national railroad (112 systems to be manufactured and deployed in Southern California),
- A nationwide cable and telecommunications backhaul operator (302 systems to be manufactured and deployed throughout California); and
- An international cell tower owner (3,537 Altergy systems, to be manufactured in California, many of which will be deployed here).

In addition, just as various computer manufacturers incorporate Intel chips into their own brand of computers, **OEM manufacturers worldwide are beginning to incorporate Altergy FCEs into their own privately branded fuel cell systems**, many of which would be deployed in California.[2] For example:

- Nokia Siemens Networks, world's third largest telecommunications services and equipment company.
- Multiquip, international construction and communications equipment company.
- Champion Energy, nationwide provider of telecommunications equipment and services.
- Eaton Corporation, worldwide power quality, data center and telecommunications equipment company.
- EnerSys, world's largest industrial battery company, and fuel cell systems provider.
- Government of the Republic of South Africa.

The one thing common to all of these customers and OEM manufacturers is that they incorporate Altergy FCEs that are registered for the ERP program. Thus, Altergy would be listed as the "manufacturer" for ALL of the systems sold, and in some cases "manufactured" (i.e., OEMed) by others who simply use Altergy's FCE (its "microprocessor"). As currently proposed by the Commission, once 25% of the annual program allocation is consumed by systems incorporating Altergy's "microprocessor," NONE OF THIS COMMERCE WOULD TAKE PLACE, NONE OF THIS MANUFACTURING WOULD OCCUR IN CALIFORNIA, AND ALL OF THE JOBS GENERATED BY THIS WORK WOULD BE LOST.

Thousands of jobs will be lost, taxes will go uncollected, and the economy will not grow. The first mentioned sale alone would create 1,251 skilled jobs (fabrication, assembly, site surveying, construction, installation, electricians):

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[2] Moreover, with these rebate-dependent California orders, Altergy could leverage enough volume to reduce prices further. These further cost reductions enable Altergy to bid projects competitively worldwide (including in California). The results are twofold: (i) diesel generators and other "dirty" technology is being replaced in California, and (ii) California's manufacturing base would be strengthened and grow.

> **"This is not a time for politics as usual. The stakes are too high. * * * * ***
> **Finally, at a time when more than two million Californians are out of work, we must search out and strip away any accumulated burdens or unreasonable regulations that stand in the way of investment and job creation." (Gov. Edmund G. Brown Jr., State of the State Address, January 31, 2011).**

The Commission should drop this provision from the Guidebook. Alternatively, the provision should be revised (as it relates to fuel cell systems only)[3] to state that no one end user can claim more than 25% of the annual funding for the ERRA. This would recognize the differences between fuel cell systems and wind systems in the way such systems are manufactured and marketed.

2. **<u>The provision limiting the eligible rebate to 50% of the purchase price of the energy system should be eliminated</u>**.

This provision penalizes the most efficient fuel cell companies – those who are driving their cost down to be competitive with non-renewable technologies – and rewards fuel cell companies who are not efficient and may not have any hope of ever being competitive without rebates.

The express purpose of the ERP is to provide short-term incentives for innovative renewable energy companies, with the expectation that they will improve distribution and drive down costs so that they ultimately will be profitable without rebates. The ultimate goal is a vibrant renewable energy industry in California populated by the best innovators, independent companies that are driving down the cost of systems and becoming financially independent, not a State littered with high cost manufacturers who forever will be dependent upon government subsidies. The ERP should therefore act to reward, not punish, the best and most efficient companies who are driving down costs and making technological innovations.

Fuel cells have traditionally been more expensive than batteries and generators. California, demonstrating its leadership in clean energy, encourages the use of emerging renewables like fuel cells by offsetting their cost with rebates to increase demand, and allow companies time to reduce costs, to make these devices more affordable. Altergy has made a major breakthrough in fuel cell technology that allows it to produce fuel cells more efficiently and at lower cost than its competitors. In the last two years alone, Altergy has reduced its fuel cell cost by more than 38%. This is great news for customers and will help expand the use of fuel cells (as evidenced by large orders Altergy has recently received for deployments in California). However, despite these cost reductions, rebates are still critical, in the near term, to allow fuel cells to compete with diesel generators and batteries.

3. **<u>Whatever the Commission does with regard to FUTURE ERP rebates, Altergy's order from MetroPCS should be allowed</u>**.

Relying on the ERP guidelines, Altergy and MetroPCS Communications, Inc. ("MetroPCS") began, more than two years ago, negotiating a large purchase order for fuel cell systems to provide clean power to

[3] As we have stated in previous submissions, fuel cell systems and wind systems are marketed in dramatically different ways. One rule does not, and should not, fit both fuel cells and wind systems.

2,489 MetroPCS wireless cell towers throughout California (the "California Deployment"). Both Altergy and MetroPCS spent hundreds of thousands of dollars and diverted considerable manpower toward this project. The parties performed site surveys, completed site walks, gathered utility bills, compiled documentation, developed a commercial supply of renewable hydrogen, negotiated hydrogen contracts, configured hardware, negotiated pricing with component suppliers and service providers, located and retained contractors, obtained landlord permissions (including negotiated amendments to the leased properties on which the cell towers sit), prepared concrete pads, and obtained building permits.

This is the **largest fuel cell deployment in the world ever** -- $172 million of clean, renewable hydrogen fuel cells to be deployed **right here in California**. It would literally put California on the map as the national leader in renewable energy technologies, and as a State where innovative clean technology companies can take hold. The State would recognize significant immediate positive impacts from this sale, including:

- The State would receive **$15 million in sales tax revenue** (at 8.75%) **plus $5.3 million in income tax revenues** (at 7%).
- **$687 million would be injected into the California economy** (using a 4:1 multiplier).
- **1,251 skilled jobs would be created for in-state California workers** (fabrication, assembly, site surveying, construction, installation, electricians).
- **Air emissions would be reduced** (replacing diesel generators) to meet CARB requirements: eliminate 1,373 tonnes of CO_2 emissions, 9.15 tonnes of CO, 8.58 tonnes of NMHC+Nox and 45 tonnes of PM per year.
- This sale will use **renewable hydrogen** made with bio-fuels from California's dairy waste, waste water treatment plants, city landfills, and others coming on line.
- This sale alone makes way for **28.5MW of load-shedding power** available in times of high power demands. Although solar and wind is considered renewable fuel there exists a problem with both and that is "Capacity Factor" defined as the amount of power produced in a 24 hour period. This is an important factor related to load-shedding given the fact that if the sun is not shining or wind is not blowing when the appropriate time to perform the load-shedding task if asked for by the ISO in a high energy demand period it may never happen, whereas, a flip of a switch turns Altergy's generator on at anytime night or day.
- **Emergency responsiveness would be improved** for the State's Office of Emergency Services and the Federal Government's Department of Homeland.

More important than the considerable benefits the State would reap, fairness requires that MetroPCS be allowed to obtain rebates for this particular contract. When the Commission suspended the ERP on March 4, it acknowledged that it did not want to negatively impact sales that **were in the negotiation phase before the suspension**, and that were contingent on the customer obtaining $3.00 per watt rebates.

> "**To avoid affecting any pending negotiations or potential sales that are contingent on the higher rebate level of $3.00 per watt**, the Energy Commission intends to extend the $3.00 per watt rebate level for approximately 30 days after the suspension is lifted" (Temporary Suspension Notice, Mar. 4, 2011)(emphasis added).

This large purchase by MetroPCS of Altergy fuel cell systems for deployment in California falls squarely within that acknowledgment. As mentioned above, MetroPCS and Altergy spent approximately two years negotiating what would be the largest deployment of fuel cells anywhere, ever -- $172 million of clean, renewable hydrogen fuel cells to be deployed right here in California. That California deployment is contingent on MetroPCS obtaining $3.00 per watt rebates for the 2,489 systems that would be deployed.

Until the suspension, which came as a complete surprise to MetroPCS and Altergy, the availability of those rebates was not an issue. The parties reasonably assumed the rebates would be available, and they negotiated the contract, spent money and deployed resources in preparation for the California deployment, all in good faith reliance on the then-current rules of the ERP. That program should not now be changed to MetroPCS's and Altergy's detriment without a notice period. Fairness and justice require that, if any changes are made to the ERP, the ERP as it existed at the time of suspension, should apply to any fuel cell system applications filed by the Customer as part of this California Deployment within some reasonable period of time (say 30 days) after the new guidebook is adopted. This would be fair both to Altergy and its Customer, and consistent with the goals of the ERP. As discussed above, the State also would recognize significant positive social and economic impacts:

The State should not renege on its "promise" to ERP participants that if they play by the rules and qualify the rebates will be allowed. MetroPCS and Altergy played by the rules. Their applications should be allowed under the rules as they existed before the untimely suspension.

4. **<u>The new CEC imposed 6 month age limit for utility bills submitted as part of its customers R1 Applications should be waived</u>**.

Altergy and its customers spent a considerable amount of time, and more than $50,000, assimilating required materials for and preparing R1 applications in accordance with the requirements of the ERP. This was a huge and costly undertaking. The physical and administrative efforts required to gather utility bills from more than 2,500 sites throughout the state and merge them with other required elements to complete the R1 Applications took approximately 3 months. Obtaining newer copies of utility bills could take a similar amount of time with no clear indication that those new bills will not "expire" before final resolution of the guidelines are adopted. Additionally, obtaining newer versions of the utility bills will provide no materially new information for the CEC in determining the eligible district or equipment loads at each site that is not already known from the expiring bills. Obtaining new bills will be of little value other than to satisfy an administrative requirement that would not have existed if the CEC had not suspended the program, or if the suspension would have been "60 to 120 days" as stipulated.

Altergy therefore requests that, with respect to MetroPCS's applications, utility bills that are dated on or after September 4, 2010 (within 6 months prior to the date the ERP was suspended) be allowed as part of submittals of R1 applications, <u>or</u> alternatively, that the period of time during the suspension be excluded in determining the age of the utility bills.

We respectfully request that Altergy's requested changes to the Draft Guidebook be adopted.

Respectfully submitted,

Mickey Oros

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