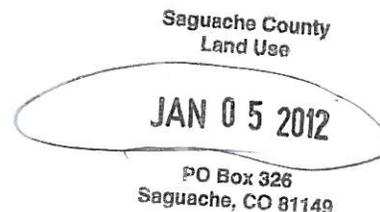


On December 6, 2011, SolarReserve® filed their Final 1041 Application with the Saguache County Commissioners. The Commissioners accepted the filing and gave the public until 3:00 p.m. on Thursday, January 26, 2012 to file written comments. Written comments can be either emailed to:

Wendi Maez at [wmaez@saguachecounty-co.gov](mailto:wmaez@saguachecounty-co.gov)

or mailed to:  
Saguache County Land Use  
Wendi Maez, Land Use Director  
PO Box 326  
Saguache, CO 81149.



The Saguache Board of County Commissioners will hold a Public Hearing in the Auditorium of the Center School, Center, Colorado to consider the proposed Final 1041 Permit Request of Solar Reserve from 2:00 p.m. to 8:00 p.m. on February 2, 2012.

These are our comments for the Public Record:

**1. SolarReserve's® Project Creates an Extraordinary Safety Hazard:** They propose to install 182,000 tons of high explosives (sodium nitrate and potassium nitrate) with absolutely inadequate security precautions to protect against accidental detonation due to workplace accidents, accidental detonation by local hunters using interposed tracer rounds, purposeful detonation by terrorists or detonation caused by the not in-frequent summer lightning strikes at the proposed site.

- **a. How Great is the Hazard?** Almost unimaginable. SolarReserve® plans to contain these unprotected explosives in four 6,000,000 gallon tanks that are not armor-plated nor sufficiently equipped with lightning diverters to prevent electrical detonation. A few tracer, incendiary or armor-piercing rounds deliberately fired into one of the tanks by a terrorist, or worse yet, a rocket propelled grenade (RPG) carried to the site by a terrorist across the unprotected border just 275 miles to the south would be sufficient to detonate the contents of one of the massive tanks, creating sympathetic detonation in the surrounding tanks.
- **b. Just How Large an Explosion?** The 24 million gallons equate to 182 kilotons of these explosives -- equivalent in explosive power to six atomic bombs the size of those dropped by the United States on Hiroshima and Nagasaki, Japan at the end of the Second World War, albeit without the concomitant radiation -- small consolation to anyone blown to smithereens by the explosion.
- **c. Destruction within the Blast Zone:** The 40 mile radius blast zone encompassed by such an accidental or purposeful detonation would obliterate most of the San Luis Valley, with a loss of life of at least 10,000 humans with non-lethal casualties numbering nearly as high. It is probable that the blast would perforate the boundary membrane of blue clay between the unconfined and confined aquifers, thus creating one of the largest lakes in Colorado.
- **d. Psychological Damage:** The effect of such an accident or deliberate terrorist event adjacent to and simultaneously wiping out the Great Sand Dunes National Park and as many as ten towns and cities in the San Luis Valley would have highly desirable psychological damage to the United States for any motivated terrorist, rivaling that following 9/11.

**2. Air Pollution:** The highly explosive molten salts will be boiling/decomposing at 712 °F, the mid-range of the purported operating temperatures between 500 °F and 1050 °F, yet the engineering firm is proposing to simply vent the gaseous by-products (similar to steam from a teakettle) into the ambient environment, stating cavalierly that they do not need to be contained since they will condense back into the two explosive salts in the colder atmosphere, to fall harmlessly to the ground. The farmers nearby may appreciate the additional commercial fertilizer being donated unsolicited to their lands, perhaps then burning their crops into extinction due to over-fertilization.

**3. Inadequate Storage of Toxic Waste Sludge:** Incomprehensively, SolarReserve® is proposing to construct not one, but two 15 acre open air ponds to "evaporate harmlessly" their industrial toxic sludge by-products.

- **a. Pond Liners are Totally Inadequate:** 15 acre toxic waste sludge is proposed to be stored above ground in ponds and will be purportedly "safely contained" against leaks into the upper water aquifer located just eighteen feet below in saturated sands simply because they will install 40 mil plastic pond liners.
- **b. Leak Detection Alarms Provide False Sense of Security:** Their only proposed "safeguards" are a number of state of the art leak detection devices. This notion that detection will prevent leaks is patent insanity. If a leak is detected, it is far too late to empty the contents of a 15 acre lake into alternate containers of some undisclosed sort before the unconfined aquifer is irretrievably contaminated.
- **c. Pond Liners Will Inevitably Leak.** Our local ranchers and farmers know exactly how long 40 mil pond liners will endure in our high mountain plateau with its radical temperature fluctuations before leaching poisonous chemicals into the precious water supply shared by all of the valley.
- **d. No Protection for Indigenous Wildlife:** No precautions are proposed to be taken to prevent birds and animals from sampling the inviting ponds in an ecosystem where surface liquids are anxiously sought.

**4. Absolute Disingenuousness Concerning Migrating Waterfowl:** More than half of the annual 20,000 to 25,000 Great Sandhill Cranes plus tens of thousands of Snow Geese and multiple varieties of Ducks and other migratory waterfowl that migrate to Monte Vista twice a year do so from the Great Sand Dunes National Park and the Baca National Wildlife Refuge located just 8 miles to the east of the proposed SolarReserve® site, flying on an thousands-of-years-established migratory path directly over the 6,200 acre, near 10 square miles where this ill-thought-out industrial complex is to be built.

- **a. Unreliable "Studies" Performed for the Applicant:** An "expert" biologist hired by SolarReserve® somehow was able to officially report that only 359 Great Sandhill Cranes were observed flying over the site and that none landed on the site. This despite the fact that local residents traveling County Road G or County Road 59 or County Road 53 evidently were hallucinating when they observed thousands of the Cranes, Snow Geese and multiple varieties of Ducks all foraging on the ground at the proposed site and somehow managing to land there -- miraculously landing there without flying there.
- **b. Inadequate Study of Endangered and Threatened Species:** The same biologist was unable to notice any occurrences of the many different endangered species that everyone else in the area has been able to see on occasion.
- **c. Where Are the Environmental Activists and the U.S. Environmental Protection Agency (EPA)?** SolarReserve® has already had experience in Nevada and California with the massive problems endangered species -- like the desert tortoise -- can cause to their goals, so it is not surprising that they would allege that no endangered species exist on their optioned site.
- **d. Endangered Species Do Live on the Proposed Site:** We have personally seen appearances on our own property just 4 miles away from the proposed site -- admittedly rarely -- by eight endangered species: the Uncompahgre Fritillary Butterfly, the Black-footed Ferret, the Mexican Spotted Owl, the Southwestern Willow Flycatcher, the Canada Lynx, the Kangaroo Rat, the Bald Eagle and the Silky Pocket Mouse. We are not alone in these observations, despite the laughably conducted "research" by SolarReserve's® hired biologist.
- **e. Endangered Species Observed on the SolarReserve® Proposed Site by the Colorado State University Natural Heritage Biologists:** In a copyright report dated October 26, 2010, the Colorado State University Colorado Natural Heritage Program reports upon the locations and status of Rare and/or Imperiled Species and Natural Communities known from or likely to occur within the area of interest for The SolarReserve® Project in Saguache County, Colorado, both the Silky Pocket Mouse and The Bald Eagle with actual observations in Section 6, Township 40N, Range 010E and Section 12, Township 041N, Range 009E. These observations were made by real (not commercially hired) professional biologists -- someone besides us doddering old folks.

**5. The Reason We Have Great Concern about the Migrating Waterfowl is Simple:** the two 656 foot tall slip-formed gray concrete towers looming skyward to house the collectors at the top will be bombarded with reflected solar rays from thousands of acres of mirrors (heliostats) that will create temperatures of nearly 2000 degrees Fahrenheit in order to transfer temperatures of 1050 °F to the circulating, highly explosive sodium and potassium nitrate "eutectic salts".

- **a. Uncollected Solar Energy:** The heat loss to the ambient from the uncollected solar temperatures will create a surrounding ambient air temperature estimated to range from 500 degrees low down on the towers to well in excess of 1000 degrees Fahrenheit at the top of the towers.
- **b. Dynamic Thermodynamic Process:** Admittedly, this is a dynamic process that will have convective heat losses rising high in the sky above the tower tops. But any competent, non-biased engineer can confirm that ambient air temperatures averaging 750 degrees will stratify on occasion, particularly during our frequent atmospheric inversions, at exactly the altitude the migrating waterfowl typically travel.
- **c. This Spells Death for all Birds:** No mammal can survive these temperatures long enough to escape, once the high temperature field has been entered. A Thanksgiving turkey is cooked at a mere 350 degrees, by comparison.

**6. Inadequate Understanding by the Applicant of the Underlying Geological Structure of the Valley below the Proposed Site:** The two massive towers will require extraordinary foundational support, like any skyscrapers. Unfortunately for SolarReserve®, the proposed site is in one of the worst locations possible in Colorado.

- **a. Eighty Feet of Water-saturated Sand:** Below the towers-to-be is 80 feet of water-permeated sand -- called the "unconfined aquifer". The static level of the water permeating this sand varies from 30 feet to as little as 18 feet below the surface, depending upon drought conditions prevailing at the time. Clearly, this substrate is completely incapable of supporting the two towers.
- **b. The Blue Clay Layer is Four Hundred Feet Thick Below the Site:** This water-saturated, relatively impermeable, spongy blue clay layer, like the water-saturated sand above it, is totally incapable, even in conjunction with the sand, to support the incredible weight of the towers. A simple call to the State Division of Water Resources would have informed SolarReserve® of the conditions below the site.
- **c. These Two Layers "Float" upon Approximately 10,000 to 30,000 Feet of Water Below:** Here in the valley, we call it the "confined aquifer". Not even SolarReserve's® engineers would have the gall to suggest that the towers themselves could be floated upon the surface of this deep lake.
- **d. The Towers Must Be Supported by Caissons to Bedrock:** However, bedrock is at least 10,000 feet -- nearly 2 miles -- below the SolarReserve® site -- and some engineering reports place bedrock even deeper at 30,000 feet -- nearly 6 miles. Please refer to Exhibit A to these comments, where cross-sectional diagrammatic maps prepared by the Colorado State Division of Water Resources illuminate the problem.
- **e. Construction of the Necessary Caissons Would Be Problematical:** Drilling and dropping huge large-diameter caissons of rebar-reinforced concrete to depths at least twice those of the infamous British Petroleum Oil Platform in the Gulf of Mexico through our precious water supplies without creating contamination is indeed a formidable engineering challenge -- one which may well be impossible. One would hope that the State Division of Water Resources would be extremely concerned and require assurances that SolarReserve® has actually thought this through and provided adequate safeguards against poisonous contamination.
- **e. This Is a Hazardous Earthquake Zone and Monumentally High Wind Area:** Any notion that supporting caissons are not needed is simply foolhardy. Just 15 miles away to the east lies the longest earthquake fault in Colorado -- the Sangre de Cristo fault. Refer to Exhibit D to these comments. The winds that created and still maintain the precious sand dunes often exceed 80 miles per hour. Need more be said? Claims that the Sangre de Cristo fault is not active ignores the evidence on the ground of the myriad artesian hot springs erupting from the confined aquifer on the western perimeter of the valley, just east of Colorado State Highway 17, from the Alligator Farm to the Orient Mine Hot Springs.

- **f. Consideration of the Residents of the San Luis Valley Is Missing:** Both of these aquifers are critical to agriculture and ranching and, not unimportantly, the humans residing in the valley, yet little concern for the residents, especially those in "low value structures surrounding the site" according to the 1041, is evinced by the applicants. But then, they live in California, and Idaho grows enough potatoes. Who needs the San Luis Valley?

**7. Visual Pollution Is Simply Ignored by These Folks:** The two 82 story tall gray featureless crematorian-like obelisks topped by attention-getting bright magnified solar fire will most certainly detract from the recently congressionally-approved Great Sand Dunes National Park which owes much of its attraction to the pristine, unspoiled surroundings and the adjacent Baca National Wildlife Refuge at the base of the snow-capped Sangre de Cristo mountain range rising majestically more than 14,000 feet above.

- **a. This Would Be a Massive, Sprawling Industrial Complex Large Enough to Encompass All of the Cities in the San Luis Valley:** SolarReserve® is proposing a sprawling and ugly industrial complex stretching over 10 square miles just 15 miles to the east of the Great Sand Dunes National Park, belching sublimated explosives and steam high into the air above. The proposed complex is an abomination and should have been stopped before it was ever begun. It would have been stopped dead by any responsible county officials, had they been present. Imagine the Great Sand Dunes in the middle of industrial-gray and dirty cold war East Germany and you will get the picture. We have included a map of the site with the cities of the San Luis Valley overlaid in Exhibit B attached to these comments.
- **b. The Extraordinarily Deceptive "Computer Simulations" Provided by SolarReserve®:** Their Final 1041 Application simulations are laughable at best. 82 story towers seen from a distance, yet in the "simulations" no taller than an inconveniently adjacent 30 foot tall electrical power pole!
- **c. Our Own "Computer Simulations":** Attached as Exhibit C to these comments are a number of "computer simulations" we have prepared to put the lie to their transparent disingenuousness. Our simulations show that the towers are taller than the St. Louis Arch, the Statue of Liberty, the tallest redwood in Yosemite Park, the Washington monument, the Leaning Tower of Pisa, the Great Giza Pyramid, Mount Rushmore, the Salida Smelter Smokestack, Old Faithful Geyser, Victoria Falls, the Bellagio in Las Vegas, London's Big Ben, the Rio de Janeiro Jesus, the Seattle Space Needle, Denver's Republic Plaza, the Brooklyn Bridge, Schloss Neu Schwanstein, the New Orleans Superdome, the San Francisco Transamerica Pyramid, Niagara Falls, the New York Fair's Unisphere and the Abu Dhabi Leaning Tower.

**8. Sound Pollution Is Also Not a Consideration for the Solar Reserve® Engineers:** The two 100 megawatt steam turbines will each create 165 decibels of noise which will somehow, almost miraculously, be "contained" in industrial size steel buildings. Interesting. In addition these remarkably inefficient Rankine cycle engines (nominally 15% efficient) will be driving two huge generators the size of those roaring in the bowels of Hoover Dam. These noisy beasts will also be "soundproofed" inside commercial steel buildings. The redeeming grace seemingly, is the fact that they will mostly run all through the night. Your neighbor's tractor fired up in his steel building will seem puny by comparison, and you may come to appreciate the fact that the noise of the tractor starting is short-lived after enduring the first few weeks of SolarReserve®. And we won't even discuss the ridiculously low water consumption estimates provided by Adam Green of SolarReserve®. Steam engines suck up water like it is going out of style -- remember all of those water towers arrayed at regular intervals along the old railway steam engine routes? And even with careful recapture for recycling, super-sized clouds of steam will be billowing skyward whenever the enormous steam engines are chugging.

**9. The Mythical Jobs Created for Local Residents:** Yes, there may well be some temporary construction and grunt jobs created while they industrialize the valley. But temporary jobs are not real jobs. Temporary jobs typically are structured as independent contractor positions with no deductions and no benefits.

- **a. The Myriad of Jobs Created for Local Residents in Saguache County:** Once done, figure it out: there will be intermittent jobs for unskilled window washers to clean the heliostats -- perhaps as often as once a year, unless rain does the job for free. A few full-time security guards to staff the entrance guard shack. But this complex will need only a very few highly qualified steam-fitters and engineers to oversee and maintain the operation. The operation will be remotely controlled and operated on a day-to-day basis via computer linkups from Santa Monica, California, using the same few people to do so for all of their industrial complexes from one centralized location.
- **b. About the Thousands of Purported "Indirect" Jobs:** We've seen grandiose claims by SolarReserve's® very active Public Relations department about thousands of "indirect" jobs created in the communities surrounding Tonapah, Nevada, for example, where a similar abortion is being started. (See, they've never actually built one of these before)
- **c. Define the "Indirect" Jobs Specifically:** What indirect jobs? The operator of a sandwich wagon to supply food to the single security guard at the gate? A local computer expert to oversee the computer linkup to California? No, these "indirect" jobs bear a remarkable similarity to the millions of jobs claimed to be "saved" by the Obama Administration while unemployment continues to rise unabated.
- **d. Just Apply Some Common Sense:** "If you can't see them, they ain't there." Here in the valley, we call that "farmer logic". Similar to, "You can't harvest potatoes unless you plant them." The same kind of logic that is remarkably lacking from the SolarReserve® Final 1041 Application to the Saguache County Commissioners. We think we are entitled to see the Great Oz belching unsubstantiated claims of "green energy" from behind the curtain.

**10. The Looming Property and Business Taxes Scandal:** SolarReserve® is obtaining \$1.5 billion in guarantees from the U.S. government (read American taxpayers) for this project in Saguache County. Why, if it is the cat's meow as they claim, aren't private investors clamoring to fund it? In the real world, private investors rush to invest in profit-making start-up ventures. Again, why aren't they rushing to SolarReserve®?

- **a. Property Tax Assessment of the SolarReserve® Project:** Using typical and traditional rules of thumb applied by Tax Assessors all over Colorado, this property should receive an approximate property tax assessment of 30% of the real value -- or about \$450 million, in this case.
- **b. Properties in Colorado Are Then Taxed at 7% of Assessed Value:** At the statutory Colorado property tax rate of 7%, SolarReserve® would therefore be paying about \$31.5 million per annum in property taxes.
- **c. Have Our Sworn Fiduciary Officers, the Saguache County Commissioners Ignored the Law?** However, according to the SolarReserve® Final 1041 Filing, this massive industrial complex with the second and third tallest skyscrapers in Colorado will carry an assessed value of just \$5.5 million (not the appropriate \$450 million) and will pay just \$135 thousand (not \$31.5 million) per year in taxes!
- **d. Perhaps the Commissioners Will Reduce Your Property Taxes by a Corresponding Amount:** SolarReserve® will pay a mere 1% of what they should be paying for property taxes each year. Try asking the Saguache County Commissioners to reduce your property taxes by 99%! If you are harboring the lingering suspicion that this has the stench of political corruption and secret backroom deals with suitcases of money being furtively exchanged swirling around it, you would not be alone.

**11. About Our Observations:** We fully expect these comments to be completely ignored, just as our earlier observations about this foolhardy non-green project have been. We have believed from the beginning that "the fix was in". You may then ask why we bother to go through the futile exercise of preparing comments.

- **a. When the Inevitable Accidents and Tragedies Occur:** We are convinced that when the chips begin to fall, all of the public officials will deny, deny and deny, running away from the problem and claiming no knowledge of the potential hazards posed by this politically connected enterprise.
- **b. We are Providing a Public Record:** These comments are being entered into the official public record to provide a clear and very defined road map for the scores of class action attorneys who will most certainly descend upon Saguache County after the inevitable happens.

- **c. Their Claimed Ignorance of the Formidable Hazards Will Not Fly:** Our Saguache County Commissioners, their own attorney, nor any of the SolarReserve® executives will be able to pretend they didn't know that unsupportable explosive hazards existed, that extreme damage to the environment was a foreseeable event, that extreme hazard and even extinction of endangered species was clearly foreseeable, that contamination of the unconfined and confined aquifers was probable, etc., etc. Corporations and Public Officials are responsible to their neighbors and must bear the consequences of deliberately dangerous actions, rulings and activities.

Submitted this 3rd day of January, 2012:



John H. Keyes



Erika E. Keyes

6900 Colorado State Highway 17  
10 miles south of Moffat in Saguache County, Colorado  
Mailing Address: P.O. Box 11  
Hooper, Colorado 81136  
Email address: [keyes@jorika.com](mailto:keyes@jorika.com)

**Attachments:**

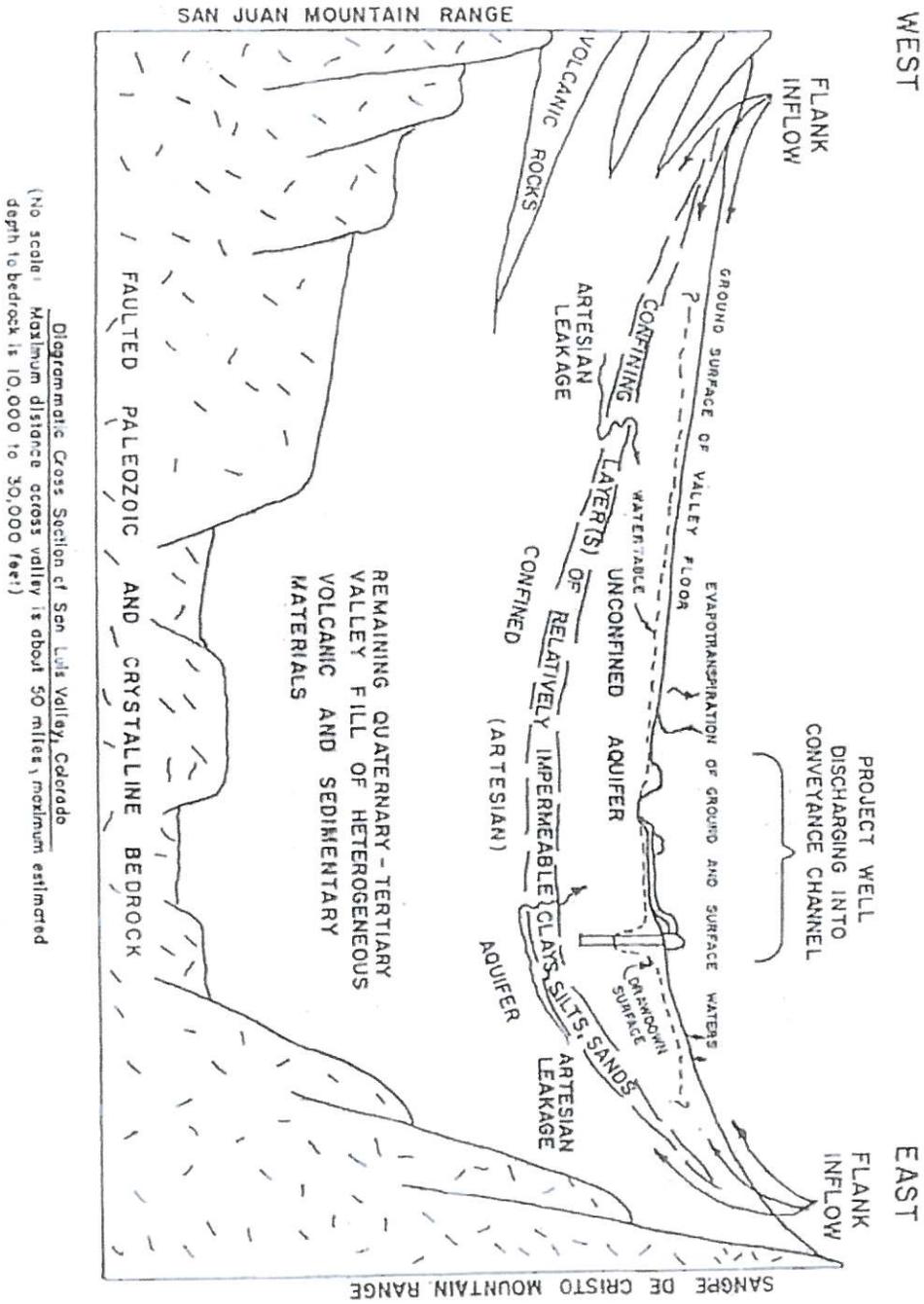
**Exhibit A - Geological diagrammatic cross-section of the San Luis Valley, Colorado, provided by the Colorado State Department of Water Resources**

**Exhibit B -Map of the proposed SolarReserve® site with San Luis Valley towns and cities (all shown to the same exact scale)**

**Exhibit C - Our own computer simulations of the proposed SolarReserve® ugly gray 82 story tall slip-formed concrete towers.**

**Exhibit D - The Sangre de Cristo Fault diagram prepared by the United States Geological Survey**

Exhibit A to the comments by John and Erika Keyes to the SolarReserve Final 1041: a geological diagrammatic cross-section of the San Luis Valley, Colorado provided by the Colorado State Department of Water Resources.



Diagrammatic Cross Section of San Luis Valley, Colorado  
 (No scale. Maximum distance across valley is about 50 miles, maximum estimated depth to bedrock is 10,000 to 30,000 feet.)

Diagrammatic representation of depth to bedrock at proposed SolarReserve® site, showing necessity of 10,000 to 30,000 foot caissons (2 miles to 6 miles depth to bedrock) Modification of diagram provided by Colorado State Division of Water Resources.

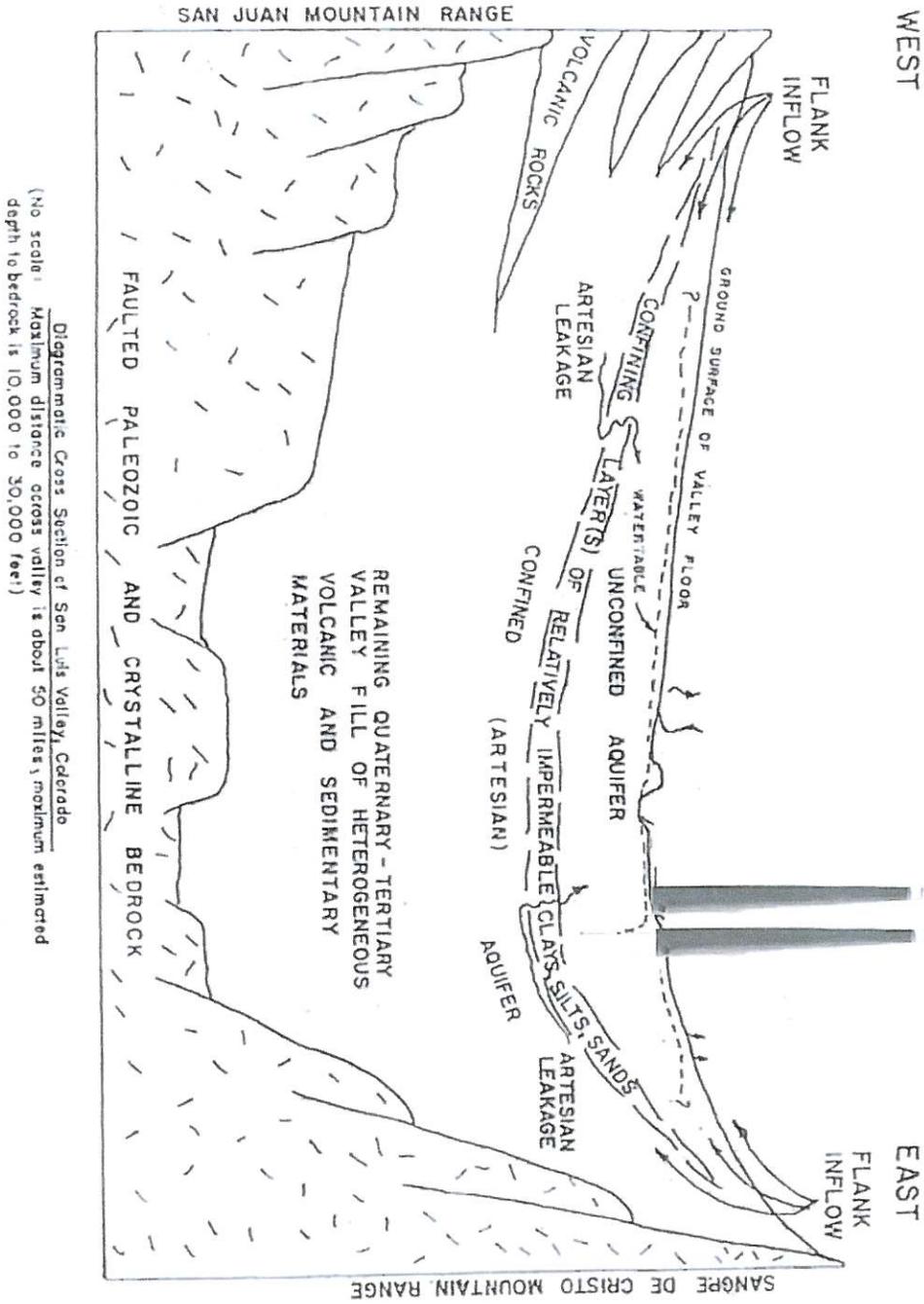


Exhibit B to the Comments by John and Erika Keyes to the SolarReserve® Final 1041: Map of the proposed SolarReserve® site with San Luis Valley towns and cities (all shown to the same exact scale) overlaid. This depiction helps to visualize just how massive this contemplated industrial complex, which will be belching steam and gaseous sodium nitrate and potassium nitrate into the Saguache County atmosphere, would be.

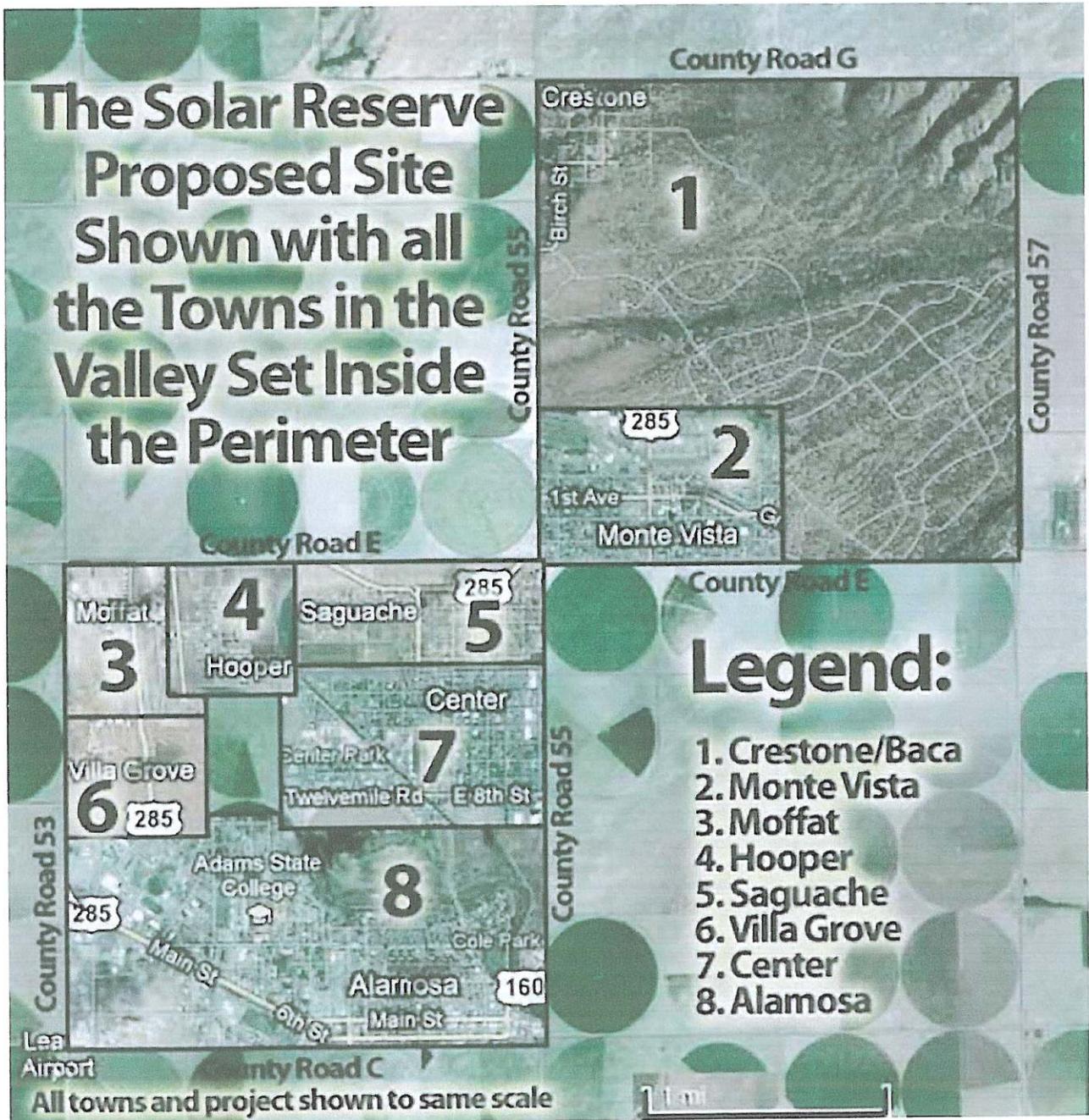
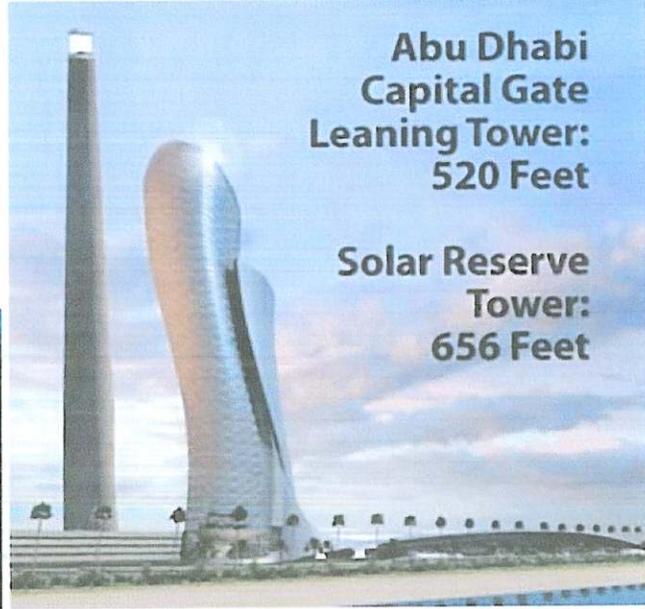
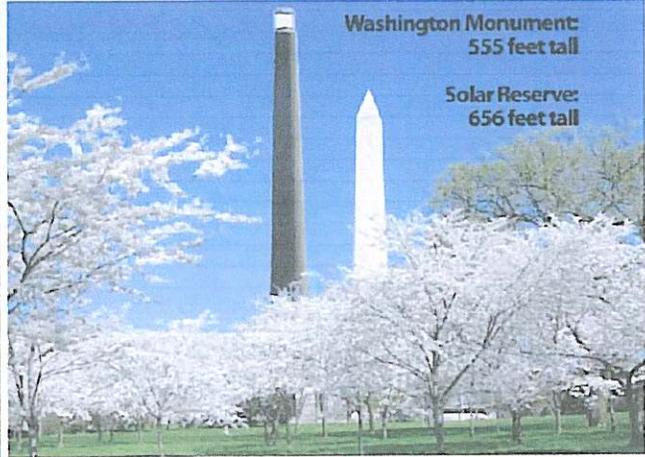
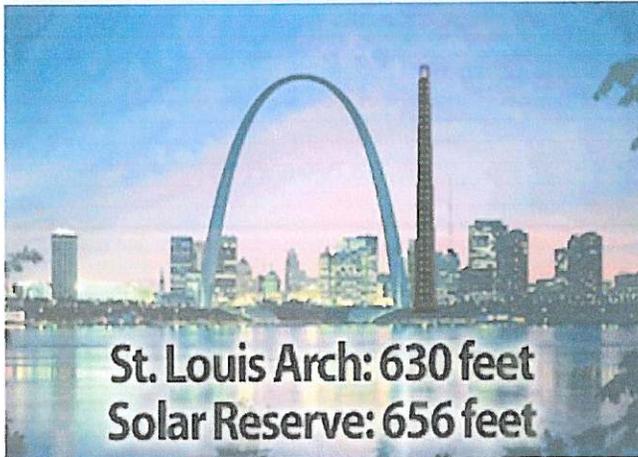
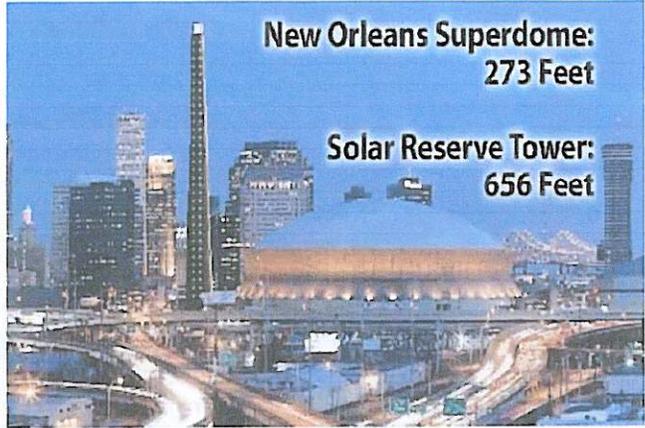
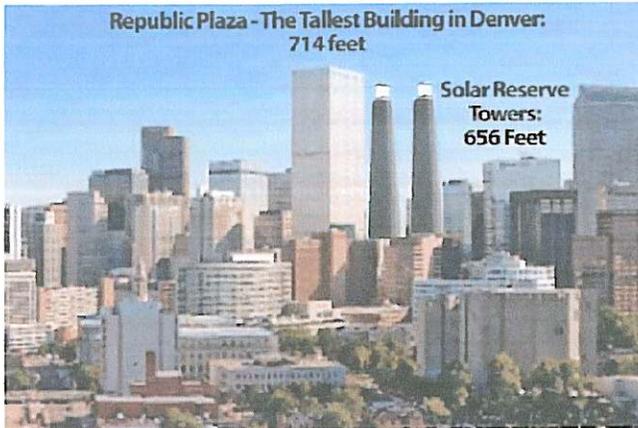
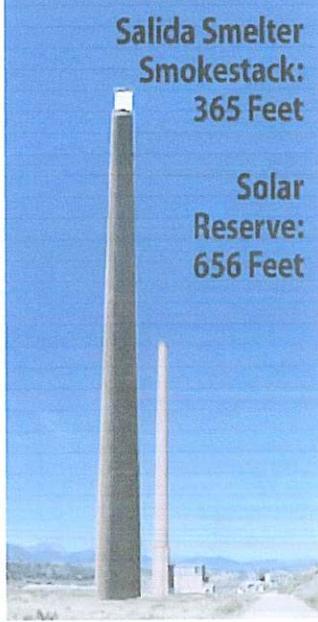
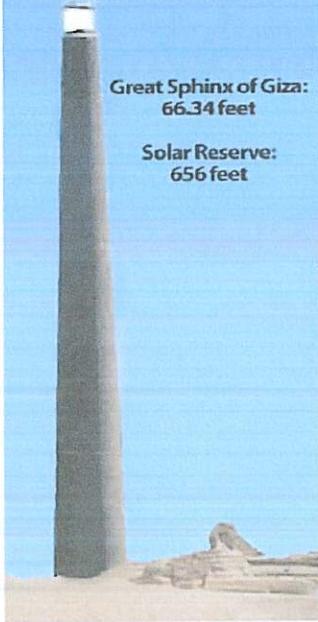
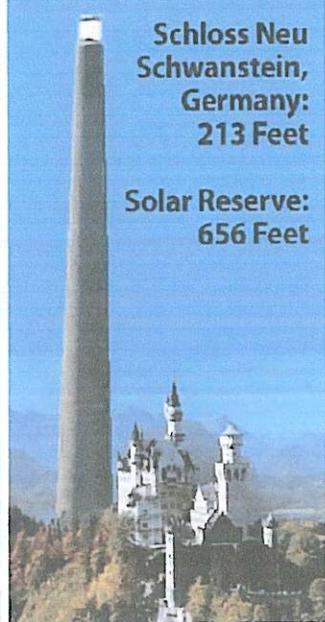
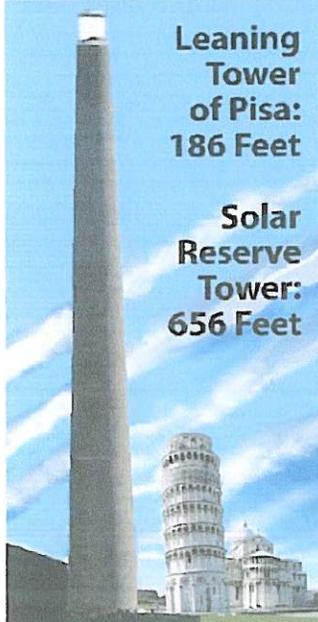
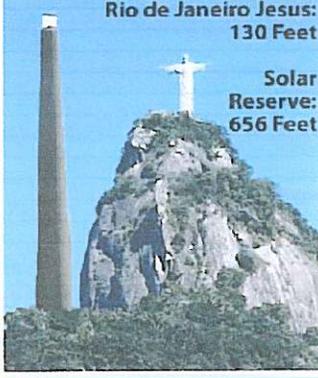
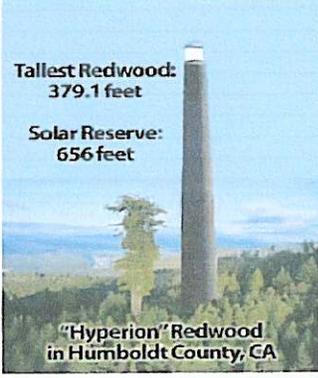
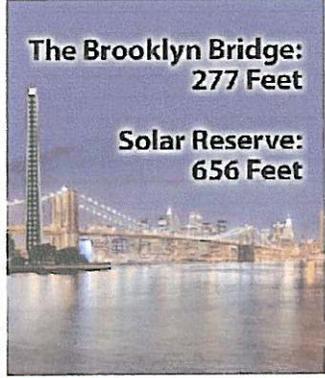
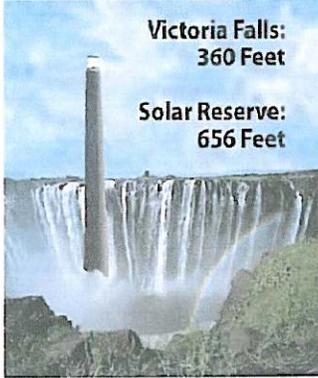
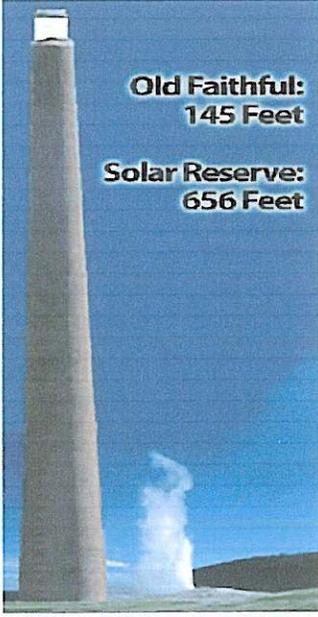
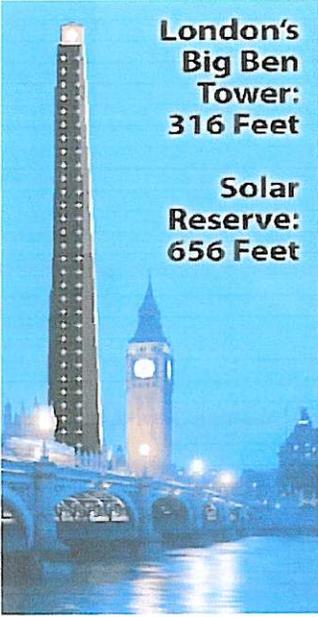
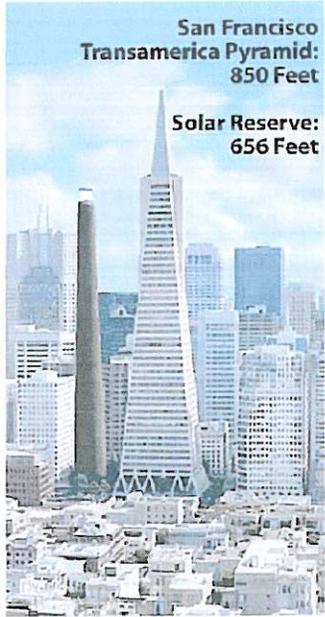
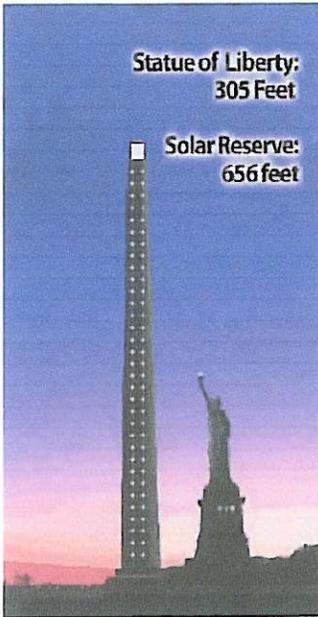
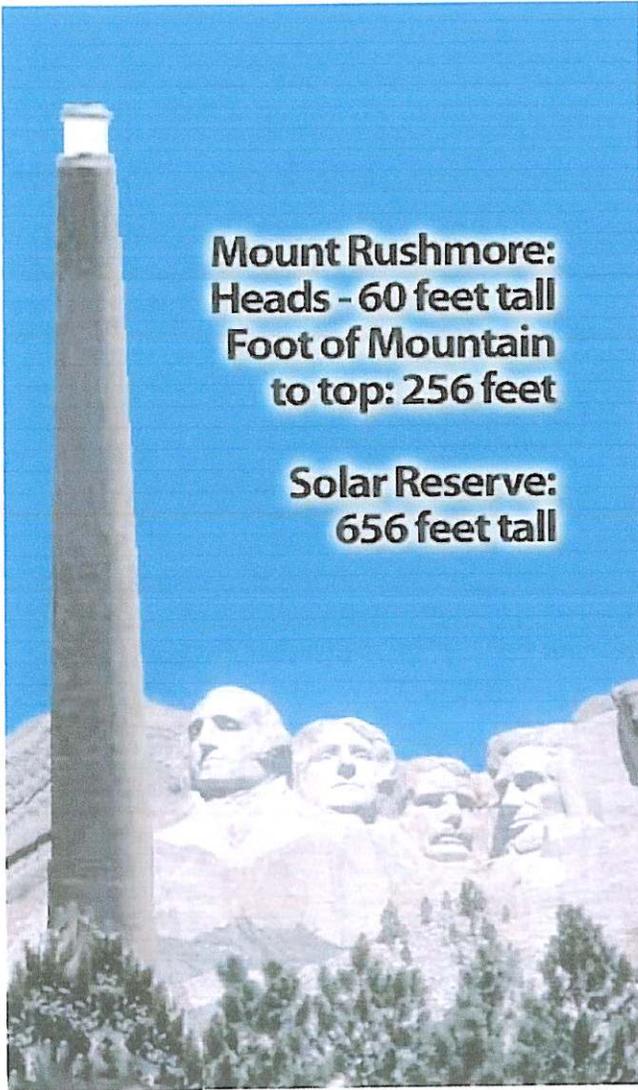


Exhibit C to the Comments by John and Erika Keyes to the SolarReserve® Final 1041: Our Own Computer Simulations of the Proposed SolarReserve® Ugly Gray 82 Story Tall Slip-formed Concrete Towers -- not Alongside the Great Sand Dunes, but Adjacent to Other World Famous Tourist Attractions. Would the Officials at Those Attractions Permit Such Abortions Nearby? Even With Massive Under-the-table Payoffs?







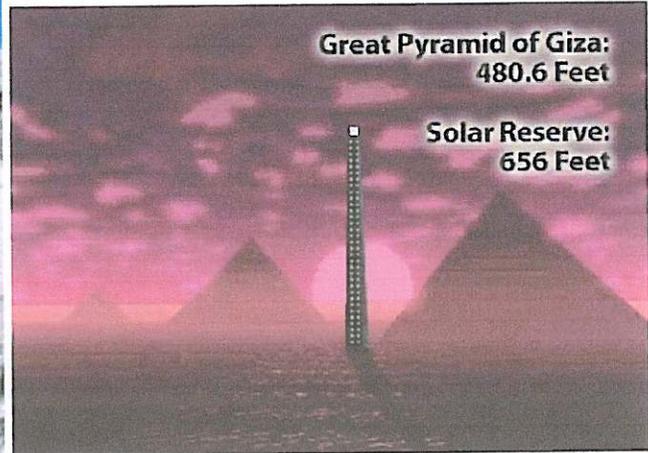
**Mount Rushmore:  
Heads - 60 feet tall  
Foot of Mountain  
to top: 256 feet**

**Solar Reserve:  
656 feet tall**



**Seattle Space Needle:  
605 Feet**

**Solar Reserve Tower:  
656 Feet**



**Great Pyramid of Giza:  
480.6 Feet**

**Solar Reserve:  
656 Feet**



## Wendi Maez

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**From:** John and Erika Keyes <editors@friedcranes.org>  
**Sent:** Friday, January 20, 2012 10:38 AM  
**To:** Wendi Maez  
**Subject:** Re: Second Set of Comments per SolarReserve® Final 1041  
**Attachments:** Second\_comments.pdf; Untitled attachment 00182.txt

Hello Wendi!

We are submitting a second set of comments to the SolarReserve® Final 1041 to be added to our first comments to the Application. We have prepared them in PDF format:

\_\_\_\_\_ Information from ESET NOD32 Antivirus, version of virus signature database 6812 (20120120) \_\_\_\_\_

The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

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On December 6, 2011, SolarReserve® filed their Final 1041 Application with the Saguache County Commissioners. The Commissioners accepted the filing and gave the public until 3:00 p.m. on Thursday, January 26, 2012 to file written comments. Written comments can be either:

Emailed to: Wendi Maez, Land Use Director at [wmaez@saguachecounty-co.gov](mailto:wmaez@saguachecounty-co.gov)

Or mailed to: Saguache County Land Use  
Wendi Maez, Land Use Director  
PO Box 326  
Saguache, CO 81149

The Saguache Board of County Commissioners will hold a Public Hearing in the Auditorium of the Center School, Center, Colorado to consider the proposed Final 1041 Permit Request of Solar Reserve from 2:00 p.m. to 8:00 p.m. on February 2, 2012.

These are our second set of comments for the Public Record submitted this 20th day of January, 2012:

  
John H. Keyes

  
Erika E. Keyes

6900 Colorado State Highway 17  
10 miles south of Moffat in Saguache County, Colorado  
Mailing Address: P.O. Box 11  
Hooper, Colorado 81136  
Email address: [keyes@jorika.com](mailto:keyes@jorika.com)

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# FriedCranes.org

Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: December 20, 2011

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## Public Comment Is Being Requested for SolarReserve® Final 1041 Application

The esteemed and right honorable Saguache County Commissioners didn't let any grass grow after receiving the SolarReserve® Final 1041 Application. With unusual and unaccustomed alacrity, they scheduled a public hearing on the application in the Center School from 2:00 to 8:00 p.m. on February 2, 2012. They graciously allowed until 3:00 p.m. on January 26, 2012 the unwashed public an opportunity to submit written comments.

Like the Sam Pace ruled "public meeting" held on December 6, 2010 where more than 150 alarmed Saguache County residents packed the Saguache County Courthouse to voice their concerns about the infamous Tessera Solar project, we harbor few allusion about the fairness of the February event to come.

(By the way, folks, if you thought Tessera Solar was dead and buried with the appropriate aspen stake through its heart, you're wrong. It may be on life-support, but like other zombies, it is still plodding through the process, with an overly generous extension granted by the obsequious Commissioners)

In the last meeting, hours were eaten with self-aggrandizing statements by the applicants and their bought and paid-for engineers. "Public comment" was something that grand Poohbah Sam Pace wasn't about to permit! Attempts by members of the public to hold him to the stated rules for public comment fell on deaf ears.

Like a self-righteous judge in a courtroom, he threatened to have the place cleared by the Sheriff if the public laughed again at any ridiculous statement forwarded by the applicants or engineers.

One such statement that evoked a huge laugh was that dust would not be permitted past the property lines during construction. Really angered the Chief Muftah that we members of the public would dare to laugh! Then one of the applicant's project engineer opined that agriculture and ranching were not important. The room erupted with boo's from all sides. You ain't seen red until you saw Exalted Leader Pace's face at that. We now know what apoplexy looks like in person.

At 6:00 p.m., with nary a word of public comment having been heard, we had to depart to attend to the animals at home. Didn't matter much, anyhow. We saw very clearly that the fix was in.

It was not through any action from the Commissars that the Tessera project failed (so far!) They ran out of money or we'd all be listening to 5,800 really big and noisy engines running loudly outside Moffat.

## Here Are a Few Topics for Your Comments, Should You Decide to Submit Them

**1. The Benign Molten Salts.** These salts are a mixture of sodium nitrate (saltpeter) and potassium nitrate (Chilean saltpeter) which are the primary ingredient in most conventional explosives and fireworks. SolarReserve® has the gall to state in their application that these explosives are not explosive. Just like commercial fertilizer. Of course, it is perfectly safe if it is not detonated. We have been forwarding this concern for months, and Nancy Lauro of Russell Engineering in Durango, Colorado, as a consultant to the Commissioners, confirmed that these nitrates are explosive.

Dynamite can be thrown in the fire and it will burn rather than exploding, assuming it is not fitted with a detonation cap. Timothy McVeigh used a small amount of ammonium nitrate (not as explosive, but more easily obtained) to bring down the Alfred P. Murrah building in Oklahoma City a few years back.

Here's the thing: as opposed to McVeigh's 2-½ tons of explosive, these bozos propose installing 24 million gallons of their "benign molten salts" in the complex. That's 182,000 tons of very high explosives to be presumably protected 24/7 by our Sheriff and a few deputies.

182 kilotons is the equivalent explosive force of 6 atomic bombs the size of those we dropped on Japan at the end of the second World War. No radiation, though -- just lots of heat and fury over a 40 mile radius blast zone encompassing most of the San Luis Valley. What? Me worry? Why should we, if our public servants don't give a rat's ass?

Since we reside in one of what they call "low value structures of little importance surrounding the complex" just four miles away, they need have no concern that we will sue them after the inevitable tragedy, since we will be but mere motes of dust floating aimlessly in the air.

But, cunningly, we are providing enduring powers of attorney to any and all relatives, so they can sue the holy hell out of our County Commissioners on whatever island they have emigrated to after the approval of the project. You must forgive us if we harbor nasty suspicions about their imminent financial improvement!

**2. Those Interesting Property Taxes.** SolarReserve® is not the least bit ashamed to slop at the public trough for \$1.5 billion of your money for the Saguache County Solar Project. They project making more than \$8.5 million over the first 20 years, making the project actually worth only \$170 million at a 20x p.e. ratio.

So one might ask, "Why is it costing \$1.5 billion to build?" In the real world, they would play hell raising \$100 million from educated investors expecting a return on their initial investment. Poor old Bernie Madoff was nothing compared to these guys, if you ask our opinion. But that's right: you didn't.

But here's the kicker. \$1.5 billion project, yet it is being assessed very interestingly by our County Commissioners. Typically, it would have a assessed value of about \$450 million, or about 30% of the real value. That's how things are done for the other citizens of Saguache County. Then, at the Colorado Statutory 7% of assessed value, they would pay \$31.5 million annually in property taxes.

Well, hold on to your hats! Our all-knowing Commissioners are assessing the massive industrial complex (the largest in Colorado since the construction of DIA) at just \$5.5 million -- resulting in taxes of just \$385 thousand per year.

In other words, our Commissioners are saying the real value is just \$18 million. Ask yourself, "If the house I'm going to build will be worth \$18 million, what are my chances of getting a \$1.5 billion mortgage?"

Hard put to find an answer? Yeah, we're having the same problem. Talk about being upside down on your mortgage. That's 8333% loan over value! If this isn't an example of blatantly criminal corruption, it seemingly has all of the outward appearances of being so. But we aren't lawyers, so how would we know?

**3. Those Damned Great Sandhill Cranes.** Some delusionary folks living here in the valley claim that 20,000 to 25,000 cranes along with tens of thousands of other migratory wetland birds like Snow Geese and all varieties of ducks migrate along thousands of years established migratory paths from (among others) the Baca Wildlife Refuge to the Monte Vista Wildlife Refuge a couple times a year. Those misguided fools even have something called the Great Sandhill Crane Festival in quaint, unimportant Monte Vista. Worse yet, birders from all over the world travel to Monte Vista to observe these evidently illusory birds.

Why, you ask? Well, according to the bought and paid for "biological expert" hired by Solar Reserve® to assess the environmental impact of their 10 square mile (6,200 acre) industrial complex which just happens to lie along that well-established migratory path, "359 cranes were observed in total and none of them landed on those acres.

Perhaps, like us, you might exclaim loudly, "What a load of cow plops!" (Actually, we used less polite language) Anyone who has traveled from Hooper to Center might also shake their heads at the unmitigated hutzpah of these California folks.

But we're willing to bet big bucks that our Revered County Commissioners will nod solemnly and say, "Yep, yep. 359. Unh-huh. Go on..."

Okay. Here's the thing. They will have two 15 acre ponds of extraordinarily toxic sludge waste stored ever so safely on 40 mil pond liners. Heaven knows those buggers will never leak into the unconfined aquifer lying just below. And the birds and mammals of all sorts will not be attracted to drink from those inviting ponds.

Actually, we don't believe they will survive long enough to get to the ponds. Here's why. Those acres and acres of mirrors (heliostats) aimed at the top of the two very ugly slip-formed concrete-gray 82 story tall towers are designed to create temperatures of 2000 °F to transfer temperatures of 1050 °F to the circulating "benign molten salts" inside the collector at the top of the towers.

You might wonder what happens to the other 950 °F heat that is not collected. Well, dummy, it is vented "harmlessly" into the atmosphere. Unless there is an inversion, of course.

But even in the absence of inversions, the heat surrounding those towers will range from 2000 °F at the top to perhaps 500 °F at the mid-height.

You cook your Thanksgiving turkey at 350 °F in your oven. Now imagine a flock of Great Sandhill Cranes or other migrating waterfowl flying through that oven over the 10 square mile complex. Can you smell burnt feathers? We can. And we're damned sure that none of the poor critters will survive. Hence the name of our website.

**4. Building Two Skyscrapers Nearly as High as the Tallest Building in Denver.** Imagine two Republic Plaza's transplanted here to Saguache County. About 150 feet at the base, looming 656 feet toward the sky. That's mighty big, homie!

Now consider the foundation. 80 feet of sand permeated with water (the unconfined aquifer) resting on 400 feet of spongy, water-soaked blue clay, floating 4200 feet above the bedrock below on the watery depths of the confined aquifer directly below the proposed SolarReserve® industrial complex. To support those ugly 82 story gray monoliths, SolarReserve® will need to sink dozens of massive rebar-reinforced concrete-filled caissons into the bedrock so far below.

Imagine constructing nearly mile long caissons down through our precious aquifers without contaminating the water upon which we depend.

We see uncanny resemblances to the deep-water drilling done in the Gulf of Mexico by British Petroleum. And those poor bastards didn't have to build the kind of caissons needed here, and they really didn't have to worry about contaminating a fresh water supply.

Further, no one has ever attempted such large penetrations of the upper aquifer. You might want to discuss this problem with one of our well drillers here in the valley, where well drilling is done like nowhere else in Colorado. Well, if something goes wrong, it won't be SolarReserve's® problem. They can always just walk away, can't they?

Won't mention the problems of sinking four 6 million gallon tanks down into the confined aquifer as proposed in their final 1041 to prevent collection of non-vented, but accumulating precipitated "benign salts" somehow actually vented from their non-contained tops of the tanks.

Don't give us a raft about that preceding paragraph. It comes from their ever-so-qualified engineering team. If you are an

engineer, prepare to be horrified by reading their quasi-plausible engineering statements in the final 1041. Remember, they haven't actually built even one of these monstrosities anywhere! This is all scaled up gigo from a science experiment at Sandia Labs years ago and another failed experiment in Barstow, California. Don't worry! Our Saguache County Commissioners trust them implicitly.

**5. Who Needs a Stinkin' Class C Airport, Anyhow?** A few months ago, Adam Green of Solar Reserve® informed our Ever-Obliging County Commissioners that there was a problem with the Saguache County Airport (off CR 53) and the FAA. Seems the FAA was requiring a bunch of hoops to be jumped through to change the presently mapped landing pattern for Class C Airplanes (the larger aircraft) to the airport. Seems those damned 82 story towers were directly in the landing pattern. Might take years to change the maps and determine a safe alternate landing pattern.

Responsible officials would have said that if it takes time, let's do it right. But, you guessed it. The very next day they fired off a letter to the FAA effectively abrogating the Class C status for the airport. Means the big firefighting planes won't be allowed to land there in the future, should we have wildfires here at the upper part of the valley. No big deal...

**6. Could There Be a Problem with Noise Pollution?** The Final 1041 doesn't worry about noise pollution. You should, perhaps, if you live in Saguache County. Our surrounding ring of mountains serves to create a kind of giant boom-box under varying wind conditions. With north winds, we hear cars and trucks acceleratiling from 50 mph to 65 mph in Moffat, some ten miles away.

Two 100 megawatt steam turbines will run at about 165 decibels each, as best we can determine. Well in excess of the 55 decibels allowed at their property line under Colorado law. Placing them in giant metal buildings ain't gonna help the problem -- it will exacerbate it. Then there are two 100 megawatt generators powered by those turbines. Have you ever been to Hoover Dam? That's the size of those rascals residing in the bowels of the dam. You can hear them from miles away from the dam. Same size, same noise. Think about it.

**7. And Then There Is the Issue of Water Utilization.** We, in the civilized world, desisted from widespread use of steam engines years and years ago. Why? Because steam engines are heat engines that employ what is known in thermodynamic circles as the "Rankine Cycle". Your car uses the "Otto Cycle" and your diesel truck uses the "Diesel Cycle". The problem with the Rankine Cycle is that it is the very least efficient of all of the engine cycles. Best case, you may get 15% efficiency. If you had one in your car, you would be burning at least twice as much gasoline.

Further, the old steam engine had lots of drawbacks. But the one we want to discuss is the steam engine's use of water. Adam Green of SolarReserve® claimed a few months ago that they would only use about 300 gallons of water a month. Wow! We would suggest that evaporation from their two 15 acre toxic waste sludge ponds would exceed that amount.

Have you ever noticed the great big water towers at regular intervals along the railroads in olden days? They were there because it takes lots and lots of water to run a steam engine. It has to be replaced, because it is vented away. 300 gallons a month for two massively large steam turbines. We mean, they are big! Sure, some recapture might be accomplished, but 300 gallons a month? As our great Aunt Matilda was fond of exclaiming, "There ain't a dime's worth of truth in you!"

**8. Build Them and They Will Come: the Towers to Nowhere.** Xcel Energy® recently announced that they have scrapped plans to build new transmission lines in the San Luis Valley, at least for seven years. This means that there are absolutely no transmission lines in all of the valley capable of carrying the 200 megawatts purportedly to be generated by SolarReserve®.

This is the dirtiest little secret of all! Why would the American taxpayer be asked to back a green project that absolutely cannot be successful? Isn't this just another Solyndra®?

We are quite outspoken in stating that we believe the engineering claims are extremely poorly thought out and of dubious practicality.

We harbor dark suspicions about the intentions of these politically-well-connected and smarmy executives. We even saw one article in the *Tucson Citizen* that the ill-fated Solyndra® which just went so flamboyantly bankrupt was a subsidiary of Solar Reserve®.

We think something smells wrong when Ron Pelosi is on the board of a company investing heavily in SolarReserve®, when Obama bundler Maurice Frazier visits the White House regularly just before the Solyndra® funding and is vocally advocating for the funding of SolarReserve® with billions of dollars for varying projects including this one, when Ken Salazar's fingerprints are all over not only this project, but the Bureau of Land Management 12,000 page Solar PEIS abortion which includes Federal Transmission Corridors (to hell with the hassle of eminent domain) running down Colorado State Highway 17, U.S. Highway 285 and plumb down the middle of the valley to descend on poor, unsuspecting Hooper with vast arrays of substations. "Who needs the stinkin' approval of the citizens? We elites know far better than the unwashed! We are important and you are not!"

**9. The Hundreds of Mythical and Imaginary Jobs Bringing Prosperity to Saguache County.** We hate to be the bearers of bad tidings, but these used car salesmen are stroking you big time! Just take a moment to look behind the curtain at the great Oz. How many high-pressure steam fitters capable of installing the miles of high pressure steam lines needed are languishing about in the county? Electrical engineers capable of installing the miles of 100 megawatt wiring and junction boxes? How about massive steam turbine mechanics and installers? 100 megawatt generator operators? Get real!

Best case, when this abortion is finally accomplished, there will be a few jobs for security guards and intermittent, part-time, unskilled window washers to clean the acres of mirrors once in a while and perhaps one person to check the computer connection to Santa Monica, California office where the operation will actually be monitored and controlled remotely.

Perhaps we are lucky they ain't layin' the unadulterated crap on us that they laid on Tonapah, Nevada, where they already

sucked up \$737 million in guarantees from the American taxpayer. In that unsuspecting town they had the gall to claim 4,500 **indirect** jobs created. Just how much does an "indirect" job pay? Minimum wage or big bucks? Forgive us if we try to understand that particular bit of hogwash in the same light as the millions upon millions of jobs purportedly "saved" by the Obama administration!

### **We've Run On Way Too Long. Sorry About That!**

Frankly, we have little hope that all our railing wildly about something so abjectly wrong will do any good whatsoever. We have believed from the beginning that the fix was in. That this was a done deal on day one. We no longer believe that this particular set of elected officials will ever get off their dead butts to go out and recruit beneficial light industry to locate in our beautiful valley. You know, do their job.

So, we will close by really pissing off the Saguache County Commissioners by wishing you a very Merry Christmas and a Happy New Year!

John and Erika Keyes  
Editors  
[www.FriedCrane.org](http://www.FriedCrane.org)

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# FriedCranes.org

Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: November 14, 2011

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## "Towers to Nowhere", Thanks to Ken Salazar and SolarReserve®!

The other shoe finally dropped. SolarReserve® submitted its Final 1041 Application to the Saguache County Commissioners at the Tuesday, November 8, 2011 Regular Meeting -- apparently too late to be included in the required legal notice in the *Saguache Crescent* Newspaper of Record for November 3.

And what an application that 1041 was! You can download it [here](#). Rehashes of the interesting computer simulation images plus multiple new ones of just how visually non-polluting the massive towers will be. Paid expert testimony that only 350 Great Sandhill Crane flew over the ten square mile site smack dab between the Baca National Wildlife Refuge and the Monte Vista Wildlife Refuge this last spring! Evidently, the other 24,650 Great Sandhill Cranes magically discerned, somehow, that they needed to detour from their millenia-long traditional migratory path directly over that future wasteland. Go cranes! We are still pursuing the chance to open a Colorado Fried Crane franchise, once the plethora of cooked birds becomes available!

## Is This Proof That SolarReserve® Just Wants to Scam the Long-Suffering American Taxpayers Out of Another \$1.5 Billion? You Decide!

No mention whatsoever of just how in the hell they plan to deliver the miraculously created 200 MW of solar electricity to the plain below, in light of Xcel Energy®'s recent decision to abandon all construction of the necessary super-high voltage transmission lines from the San Luis Valley to Denver for the next seven years.

That is the epitome of a "Bridge to Nowhere!"

## Who Gets the Remaining, Presumably Unspent \$1,489,000,000.00 of the \$1.5 Billion the Long Suffering American Taxpayer Is Supposed to Guarantee?

SolarReserve®, talking about the property taxes it will pay when the complex is finished, on page 51 of its submission states "Based on this methodology, the initial 100 MW facility will generate \$424,000 in average annual revenues, or approximately \$8.5 million during the first 20 years of operations. Annual property tax revenues range from \$385,000 in the year 1 of operation to \$465,000 in year 20." Or twice that amount with two units.

We're guessing the Commissioners will conform to Colorado Law in assessing the property taxes on the new industrial installations. And we know they wouldn't give SolarReserve® an illegal or non-conforming deal. Presumably, the folks at SolarReserve® didn't set their own property taxes, but consulted with our embarrassingly-obliging Commissioners.

Since taxes are 7% of assessed valuation, that would make the entire complex assessed at only about \$11 million. Yet SolarReserve® is apparently asserting to the green-sucking Department of Energy that it will cost \$1.5 Billion. Surely, it would be a fiduciary responsibility of our County Commissioners to assess the massive industrial complex somewhere close to that proposed real cost, wouldn't it?

So, any prudent person guaranteeing a loan (namely, you!) should ask indignantly, "Where in the hell is the rest of that money going? Into whose pockets?" And people have the gall to complain about Wall Street Fat Cats! Surely nearly a billion and a half dollars are necessary for all the payoffs to local, state and federal politicians to get this abortion approved, are they?

Nowadays, it is almost impossible to get rid of the silly notion that there is a stink of corruption wafting all about us. We read in the October 22, 2011 edition of the *Tucson Citizen* that the infamous Solyndra that just went down the dumper to the tune of half a Billion taxpayer bucks is a subsidiary of SolarReserve®. We couldn't independently confirm that assertion, but we note with interest that both companies share incestuously large numbers of directors, investors, officers, and frequent White House visitors. Probably nothing to it...

## SolarReserve® Don't Need No Stinkin' Laws of Physics or Chemical Properties!

You will find some astounding reading material provided by SolarReserve®'s bought-and-paid-for-engineers in [Exhibit G to their final 1041 which may be read in its entirety here](#).

Somehow, the most important ingredients in gunpowder, dynamite and fireworks -- sodium nitrate and potassium nitrate -- are safe as ever can be. and we quote them: "In the dry chemical form, contact with combustible material will not cause spontaneous ignition; however, the substance will enhance an existing fire (but not cause an explosion)."

Geez, and gasoline won't ignite if you don't put a match to it, either!

We have demonstrated in earlier editorials that incendiary rounds, explosive rounds or armor piercing rounds fired into their four "safe" 6,000,000 gallon tanks (you read it right, not one, but four 6 million gallon tanks) of explosive materials accidentally by hunters could cause a detonation. We have a suggestion for the condescending engineers who prepared Exhibit G: read up on detonators and detonation devices! One can imagine that some RPG's carried over the unsecured border to our south by terrorists might just cause problems.

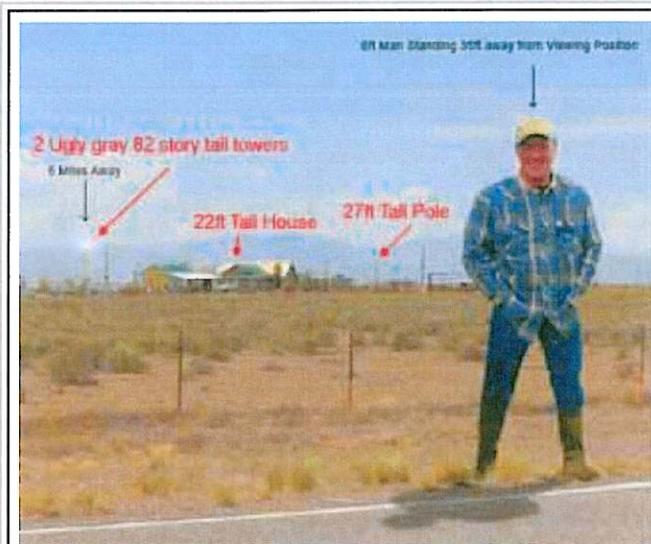
Surely they will have run this all by Homeland Security to get their approval. Well, maybe not, since those folks are busy patting down old ladies and children in airports and closing barn doors well after the horse has escaped. ("Proactive" and "creative" ain't words in their bureaucratic vocabulary)

Despite the chemical property of potassium nitrate **boiling/decomposing** at 752 °F (actually closer to 712.5 °F after correcting for our altitude here in Saguache County) and sodium nitrate **boiling/decomposing** at 716 °F (altitude corrected: 668.9 °F), these properties are denied in Exhibit G.

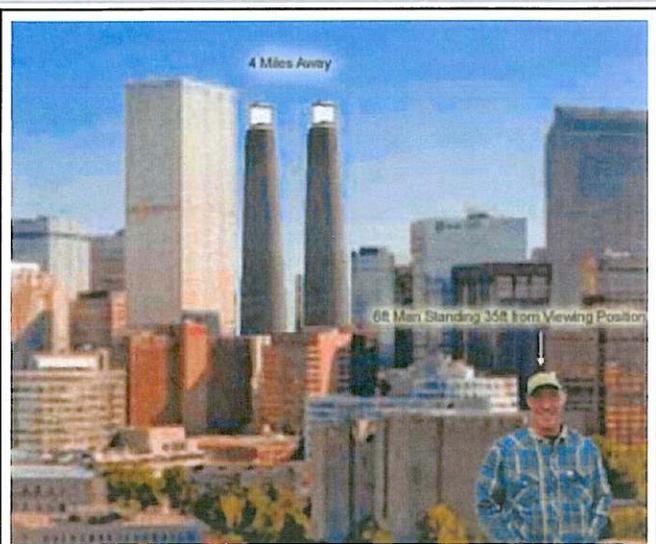
Citing an old amateurish science experiment conducted years ago at Sandia Labs and Barstow, California, SolarReserve® confidentially states that no problem exists in operating the "benign eutectic salts" at temperatures of 1050 °F or, occasionally at somewhat higher temperatures in unbelievably huge tanks that will be **open to the atmosphere!** Again we quote, "The molten salt storage tanks will be open to the atmosphere (through vents, described below) and a nitrogen "blanket" atmosphere will not be needed."

You read it correctly! The salts will be **boiling/decomposing** at the proposed operational temperatures, but those **decompositional gases** will simply be **vented** into our pristine Saguache County air. No problem! No problem!

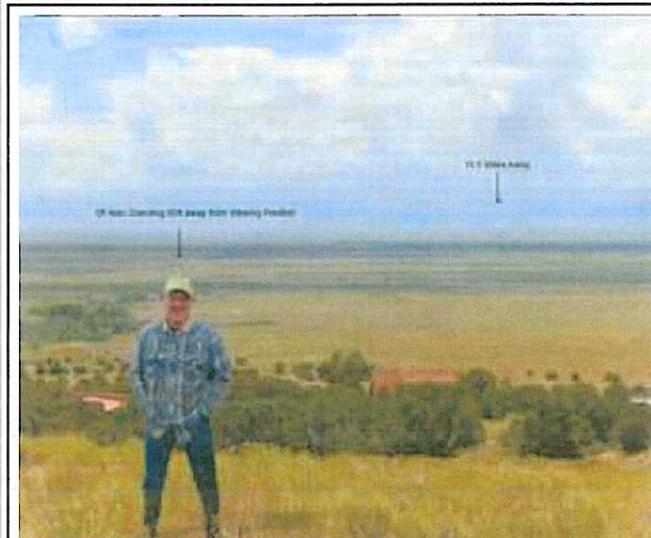
### Do You Believe Your Lying Eyes or SolarReserve®'s Bought-and-Paid-For "Computer Simulations"?



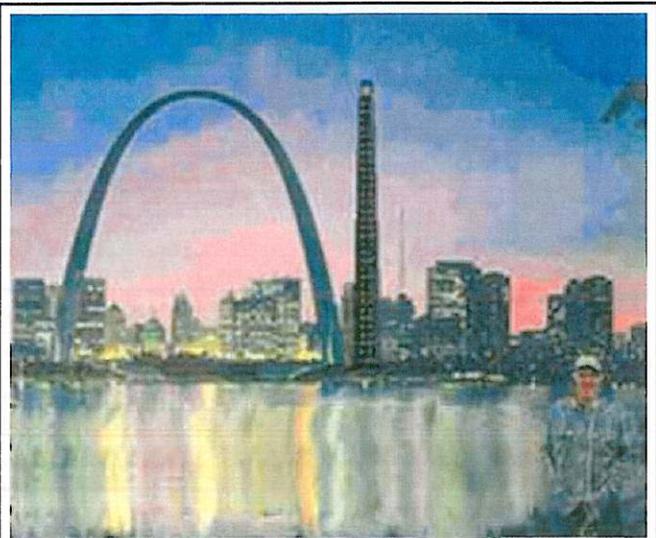
Their computer simulation from 2.3 miles north of Hooper on Highway 17, showing both 82 story tall towers at the left.



Downtown Denver - our Photoshop® simulation to similar scale as theirs. 82 story tall ugly gray towers are kinda **big**.



SolarReserve®'s computer simulation showing the two 82 story tall ugly towers as seen from Crestone. Do you see them?



Our simulation of the St. Louis Arch from nearly the same distance. Look really, really hard! Can you see the tower?

And we aren't even going to dignify their absolutely audaciously insulting nighttime computer simulations with comments in this editorial. We'll save that for a later editorial when we have gotten our breath back!

## **We Sincerely Hope the Congressional Committees Investigating the Abysmal Solyndra Scam Will Take the Time to Look into This Potentially More Exciting Loan Guarantee!**

We will assiduously forward our comments on these 82 story tall, incredibly ugly gray twin towers being proposed to loom skyward to create a behemoth visual blight gracing The Great Sand Dunes National Park and Recreation Area, the potential extinction of tens of thousands of migratory wetland birds, the very real potential for the contamination of both the San Luis Valley unconfined and confined aquifers (incidentally, why isn't President Obama worrying about **our** aquifers as he ponders the possible contamination of the Nebraska aquifer by the new oil pipeline?) and a potentially massively disastrous explosive potential to the appropriate congressional committees if the plaintive hopes that someone back there in that political quicksand will by chance happen to pay attention -- stopping this deplorable loan guarantee before it happens. Yeah, we know! This limited liability company has already sopped \$737 million from the public trough. We just think that now, they're just being piggish!

Gotta admit our prospects ain't very high for action to stop this abortion, but then we are ever hopeful!

John and Erika Keyes  
Editor  
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# FriedCranes.org



Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 2, 2012

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## When Explosives Are Found in Estancia, New Mexico, the Sheriff, the FBI, the ATF and the National Guard Rush to Close State Highway 41 and Evacuate Neighbors on Dec. 31, 2011!

State Road 41 outside Estancia, NM was closed and neighbors were all evacuated for safety Saturday and Sunday while the FBI, the ATF and a New Mexico National Guard team, along with a large number of explosives experts, dismantled a small laboratory containing some few chemical experiments.

The landlord discovered the lab on Friday morning, Dec. 30. The trailer house and sheds had been rented by a 20 year Sandia National Labs Chemist who died recently at the age of 80.

The massive official response was due to a relatively small amount of explosive chemicals being found.



## Why Are Local, State and Federal Agencies Concerned About a Small Quantity of Explosives in New Mexico When 182,000 Tons of High Explosives Are Planned for Southern Colorado?

Because SolarReserve® of Santa Monica, California is planning a purportedly "green energy" project using these explosives, local and federal agencies including the local County Commissioners, the local Sheriff, Homeland Security, the Environmental Protection Agency, the Federal Bureau of Investigation, Alcohol, Firearms and Tobacco Bureau and the Colorado National Guard evince absolutely no interest rushing to respond as did the proactive New Mexico authorities a mere 200 miles to the south.

SolarReserve® plans to store not just a few pounds of explosives, but 24,000,000 gallons (186,000 tons) of high explosives referred to innocuously as "molten salts" in their PR releases and Final 1041 Application to Saguache County Officials. All without adequate protection aside from a single security guard and whatever protection the Sheriff and a few Deputies patrolling a 3,170 square mile county can provide on their rounds.

Your humble editors at [www.FriedCranes.org](http://www.FriedCranes.org) have attempted in vain to alert local and federal authorities to the fact that 182 kilotons of molten sodium nitrate (saltpeter) and potassium nitrate (Chilean saltpeter) have the equivalent explosive force to 6 atomic bombs the size of those the U.S. dropped on Hiroshima and Nagasaki at the end of the Second World War. The only redeeming factor is that an explosion of these "molten salts" would not be accompanied by atomic radiation.

The estimated 40 mile radius blast zone would obliterate the 50 mile wide San Luis Valley, home to the Great Sand Dunes National Park and multiple National Wildlife Refuges along with a dozen towns and cities housing thousands of unsuspecting local citizens.

## Here's The Bright Side: When Our Totally Predictable Accidental or Purposeful Explosion Occurs, Colorado Will Have a Brand New Tourist Attraction That Will Attract Billions of Dollars in Revenues: **Absolutely the Deepest Fresh Water Lake Anywhere in the World!**

Lake Baikal in the Siberian Region of Russia, was formerly the deepest fresh water lake in the world at 5,369 feet deep, but it won't hold a candle to Lake SolarReserve® (we are the first to suggest that it be named after its creators) with its depth of 30,000 feet -- fully 5-½ times deeper!

Interestingly, The Colorado State Division of Water Resources estimates that the San Luis Valley Confined Aquifer has depths between 10,000 and 30,000 feet lying in the fifty miles between the majestic Sangre de Cristo Mountains to the east and the San Juan and La Garita Mountains to the west.

Unfortunately, all that protects this aquifer is a 400 foot thick "Blue Clay Layer" and about 80 feet of sand "floating" on top of it as a kind of protective membrane. Once the inevitable explosion occurs, there is little doubt that the force of six atomic bombs will rupture the membrane to instantly create an 8000 square mile lake -- certainly the largest in Colorado. And by comparison, it will

be larger than Lake Ontario and 4.4 times larger than the Great Salt Lake.

Since your editors live just 4 miles from the proposed SolarReserve® high explosives site, we will neither survive the explosion nor live to see the massive resulting lake. But let us tell you right now that our hearts swell with overweening pride to know our mortal remains will rest at the bottom of a national landmark of epic proportions!

John and Erika Keyes  
Editors

For more information:  
[www.FriedCrane.org](http://www.FriedCrane.org)

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# FriedCranes.org

Saguache County, Colorado: SolarReserve's Final 1041

Editorial: January 3, 2012

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## We Hope That All of Our Neighbors Take the Time to Write Their Comments (Pro or Con -- It's a Free Country, After All!) and Send Them to the Saguache County Commissioners Before January 26, 2012

We have dispatched our own comments today to insure that they arrive in a timely fashion before the deadline the Commissioners have set.

We got rather wordy -- what else is new? But you can find our complete comments for the official public record on the [friedcranes.org](http://friedcranes.org) website, along with details about a scheduled public meeting in February.

For those of you who are not enthralled with our expansive and deathless prose in the full comments, here are the high points:

- **SolarReserve's® Project Creates an Extraordinary Safety Hazard:** They're gonna put 182 thousand tons of high explosives (equivalent to six atomic bombs) in 4 tanks with laughable security to prevent detonation by workplace accidents, local hunters, by terrorists or by lightning strikes.
- **Destruction within the Blast Zone:** The 40 mile radius blast zone would obliterate most of the San Luis Valley, with a loss of life of at least 10,000 humans with non-lethal casualties numbering nearly as high, simultaneously creating the largest lake in Colorado (8,000 square miles) and the deepest in the entire world at 30,000 feet.
- **Massive Air Pollution:** The highly explosive "molten salts" for energy storage proposed by SolarReserve® will be boiling/decomposing at 712 °F, and simply vented the into the ambient environment to condense and fall "harmlessly" to the ground according to their 1041 filing.
- **Inadequate Storage of Toxic Waste Sludge:** They propose two 15 acre open air ponds to "evaporate harmlessly" their industrial toxic sludge by-products, with inadequate 40 mil plastic pond liners and leak detection alarms. If a leak is detected, it is far too late to empty the contents of a 15 acre lake into alternate containers of some undisclosed sort before the unconfined aquifer is irretrievably contaminated.
- **No Protection for Indigenous Wildlife:** No precautions are proposed to be taken to prevent birds and animals from sampling the inviting ponds in an ecosystem where surface liquids are anxiously sought.
- **Extreme Danger to Migrating Waterfowl:** 20,000 to 25,000 Great Sandhill Cranes plus tens of thousands of Snow Geese and multiple varieties of Ducks and other migratory waterfowl that migrate to and from Monte Vista twice a year do so from the Great Sand Dunes National Park and the Baca National Wildlife Refuge located just 8 miles to the east of the proposed SolarReserve® site, flying on an thousands-of-years-established migratory path directly over the near 10 square miles where this ill-thought-out industrial complex is to be built.
- **Unreliable "Studies" Performed for SolarReserve®.** An "expert" biologist hired by them officially reported that only 359 Great Sandhill Cranes were observed flying over the site and that none landed on the site. The same biologist was unable to notice any occurrences of the many different endangered species that everyone else in the area has been able to see on occasion. Endangered Species do live on the proposed site: the Uncompahgre Fritillary Butterfly, the Black-footed Ferret, the Mexican Spotted Owl, the Southwestern Willow Flycatcher, the Canada Lynx, the Kangaroo Rat, the Bald Eagle and the Silky Pocket Mouse. Despite the "research" by SolarReserve's® hired biologist, the Colorado State University Natural Heritage Program reports within the area of interest for The SolarReserve® Project in Saguache County, Colorado, both the Silky Pocket Mouse and The Bald Eagle with actual observations in Section 6, Township 40N, Range 010E and Section 12, Township 041N, Range 009E.
- **Migrating Waterfowl Will Be "Fried" in Mid-air!** The two 82 story slip-formed gray concrete towers will be heated with solar rays from thousands of acres of mirrors (heliostats) that will create temperatures of nearly 2000 °F in order to transfer temperatures of 1050 °F to the circulating "molten salts". The heat loss to the ambient will create air temperatures estimated to range from 500 °F to 1000 °F surrounding the towers. This dynamic process will have convective heat losses, but ambient air temperatures averaging 750 °F will stratify on occasion, particularly during our frequent atmospheric inversions, creating a "death field" for the migrating waterfowl. A Thanksgiving turkey is cooked at a mere 350 degrees, by comparison.
- **The Towers Must Be Supported by Caissons to Bedrock:** However, bedrock is at least 10,000 feet -- near 2 miles -- but more probably 30,000 feet -- near 6 miles -- below the site, based upon cross-sectional diagrammatic maps

prepared by the Colorado State Division of Water Resources. [Click here to see these maps](#). But construction of the needed caissons is problematical: Drilling and dropping huge large-diameter caissons of rebar-reinforced concrete to depths at least twice those of the infamous British Petroleum Oil Platform in the Gulf of Mexico through our precious water supplies without creating poisonous contamination is indeed a formidable engineering challenge -- one which may well be impossible.

- **This Is a Hazardous Earthquake Zone and Monumentally High Wind Area:** Any notion that supporting caissons are not needed is simply foolhardy. Just 15 miles away to the east lies the longest earthquake fault in Colorado -- the Sangre de Cristo fault. The winds that created and still maintain the precious sand dunes often exceed 80 miles per hour. Claims that the Sangre de Cristo fault is not active ignores the evidence on the ground of the myriad artesian hot springs erupting from the confined aquifer on the western perimeter of the valley, just east of Colorado State Highway 17, from the Alligator Farm to the Orient Mine Hot Springs. [Click here for the USGS map of the Sangre de Cristo Fault](#)
- **Visual Pollution Is Simply Ignored by These Folks:** The two 82 story tall gray featureless crematorian-like obelisks topped by attention-getting bright magnified solar fire will most certainly detract from the recently congressionally-approved Great Sand Dunes National Park which owes much of its attraction to the pristine, unspoiled surroundings and the adjacent Baca National Wildlife Refuge at the base of the snow-capped Sangre de Cristo mountain range rising majestically more than 14,000 feet above.
- **This Would Be a Massive, Sprawling Industrial Complex Large Enough to Encompass All of the Cities in the San Luis Valley:** SolarReserve® is proposing an ugly industrial complex spreading over 10 square miles just 15 miles to the east of the Great Sand Dunes National Park, belching sublimated explosives and steam high into the air above. The proposed complex is an abomination and should have been stopped before it was ever begun. It would have been stopped dead by any responsible county officials, had they been present. [Click here for an overlay map](#)
- **The Extraordinarily Deceptive "Computer Simulations" Provided by SolarReserve®:** Their computer simulations show 82 story towers barely seen from a distance, yet no taller than an inconveniently adjacent 30 foot tall electrical power pole! We have prepared more realistic simulations to put the lie to their transparent disingenuousness, showing that the towers are taller than the St. Louis Arch, the Statue of Liberty, the tallest redwood in Yosemite Park, the Washington monument, the Leaning Tower of Pisa, the Great Giza Pyramid, Mount Rushmore, the Salida Smelter Smokestack, Old Faithful Geyser, Victoria Falls, the Bellagio in Las Vegas, London's Big Ben, the Rio de Janeiro Jesus, the Seattle Space Needle, Denver's Republic Plaza, the Brooklyn Bridge, Schloss Neu Schwanstein, the New Orleans Superdome, the San Francisco Transamerica Pyramid, Niagara Falls, the New York Fair's Unisphere and the Abu Dhabi Leaning Tower. [Click here to see our simulations](#).
- **Sound Pollution Is Also Not a Consideration for the Solar Reserve® Engineers:** The two 100 megawatt steam turbines will each create 165 decibels of noise which will somehow, almost miraculously, be "contained" in industrial size steel buildings. These remarkably inefficient Rankine cycle engines (nominally 15% efficient) will be driving two huge generators the size of those roaring in the bowels of Hoover Dam. These noisy beasts will also be "soundproofed" inside commercial steel buildings. The redeeming grace, seemingly, is the fact that they will mostly run all through the night.
- **9. The Mythical Jobs Created for Local Residents:** Yes, there may well be some temporary construction and grunt jobs created while they industrialize the valley. But temporary jobs are not real jobs. Temporary jobs typically are structured as independent contractor positions with no deductions and no benefits. Once done, figure it out: there will be intermittent jobs for unskilled window washers to clean the heliostats -- maybe once a year, unless rain does the job for free. A few full-time security guards to staff the entrance guard shack. But this complex will need only a very few highly qualified steam-fitters and engineers to oversee and maintain the operation. The operation will be remotely controlled and operated on a day-to-day basis via computer linkups from Santa Monica, California, using the same few people to do so for all of their industrial complexes from one centralized location.
- **About the Thousands of Purported "Indirect" Jobs:** We've seen grandiose claims by SolarReserve's® very active Public Relations department about thousands of "indirect" jobs created in the communities surrounding their projects. What indirect jobs? The operator of a sandwich wagon to supply food to the single security guard at the gate? A local computer expert to oversee the computer linkup to California? No, these "indirect" jobs bear a remarkable similarity to the millions of jobs claimed to be "saved" by the Obama Administration while unemployment continued to rise unabated.
- **The Looming Property and Business Taxes Scandal:** SolarReserve® is obtaining \$1.5 billion in guarantees from the U.S. government (read American taxpayers) for this project in Saguache County. Using typical and traditional rules of thumb applied by Tax Assessors all over Colorado, this property should receive an approximate property tax assessment of 30% of the real value -- or about \$450 million, in this case. At the statutory Colorado property tax rate of 7%, SolarReserve® would therefore be paying about \$31.5 million per annum in property taxes.
- **Have Our Sworn Fiduciary Officers, the Saguache County Commissioners Ignored the Law?** However, according to the SolarReserve® Final 1041 Filing, this massive industrial complex with the second and third tallest skyscrapers in Colorado will carry an assessed value of just \$5.5 million (not the appropriate \$450 million) and will pay just \$135 thousand (not \$31.5 million) per year in taxes! If you are harboring the lingering suspicion that this has the stench of political corruption and secret backroom deals with suitcases of money being furtively exchanged swirling around it, you would not be alone.
- **About Our Observations:** We fully expect these comments to be completely ignored, just as our earlier observations about this foolhardy non-green project have been. We have believed from the beginning that "the fix was in". You may then ask why we bother to go through the futile exercise of preparing comments. We are convinced that when the chips

begin to fall after predictable accidents and tragedies, all of the public officials will deny, deny and deny, running away from the problem and claiming no knowledge of the potential hazards posed by this politically connected enterprise.

- **We are Providing a Public Record:** These comments are being entered into the official public record to provide a clear and very defined road map for the scores of class action attorneys who will most certainly descend upon Saguache County after the inevitable happens. Loudly claimed ignorance of the formidable hazards simply will not fly: Our Saguache County Commissioners, their own attorney, nor any of the SolarReserve® executives will be able to pretend they didn't know that unsupportable explosive hazards existed, that extreme damage to the environment was a foreseeable event, that extreme hazard and even extinction of endangered species was clearly foreseeable, that contamination of the unconfined and confined aquifers was probable, etc., etc. Corporations and Public Officials are responsible to their neighbors and must bear the consequences of deliberately dangerous actions, rulings and activities.

John and Erika Keyes

Editors

For more information:

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

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# FriedCranes.org



Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 5, 2012

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**FriedCranes.org Scoops the Nation by Presenting the Very First Topographic Map Showing What Will Be the Largest Man-made, Deepest Lake in the World Right Here in Colorado, Stretching into New Mexico!**



Although it will be impossible to determine later whether the explosion (equivalent to 6 atomic bombs) was accidentally or purposely detonated, the actual causation will be of little importance compared to the result.

Historians in the future will conclude that it was a small price to pay -- that is, the loss of 8,000 square miles of productive agricultural lands, some 25,000 relatively low income humans residing in 12 towns in the former San Luis Valley as well as a number of wildlife refuges and one relatively small National Park.

Why? Because the resultant fresh water lake will be immortalized forever as the largest in area and by far the deepest man-made lake anywhere in the world.

Oh, naysayers may criticize the methodology and the results, particularly for Colorado, since the explosion would incinerate all vegetation on the sides of the mountain ranges surrounding the former valley, while probably sparing the vegetation to the south. New Mexico will reap greater tourist attraction benefits because the water will be far shallower there, allowing easier construction of marinas and boat ramps.

**Here are the pertinent statistics:** The man-made lake, which we have named "SolarReserve® Lake" in honor of its bumbling creators, will have a surface area of 8,000 square miles, making the Hoover Dam at 247 square miles and the Chinese Three Gorges Dam at 403 square miles seem puny by comparison. At 30,000 feet deep, it will be by far the deepest fresh water lake in the entire world, making Lake Baikal, in the Siberian region of Russia at only 5,387 feet deep, seem almost like a wading pool!

Yeah, yeah! We know. It ain't happened yet, but it is just a matter of time. SolarReserve® is planning to store 24 million gallons -- 182,000 tons -- of what they euphemistically call "molten salts", but which are actually a highly explosive sodium and potassium nitrate mixture maintained at very high temperatures (Chilean saltpeter and saltpeter, respectively -- think liquid gunpowder) with almost no precautions against accidental or purposeful detonation.

They have optioned a site resting on an earthen membrane comprised of just 480 feet of sand and clay above the exceptionally deep San Luis Valley Confined Aquifer. [Click here to see diagrammatic cross-section prepared by the Colorado State Division of Water Resources.](#) Should an explosion occur, it is certain that the membrane would be destroyed by the downward force of 6 atomic bombs -- hence creating the 8,000 square mile, 30,000 feet deep lake. The resultant 40 mile radius blast zone would indeed incinerate all vegetation on the facing slopes of the Sangre de Cristo, San Juan and La Garita mountain ranges, making them a bit ugly and unattractive to some people. Just saying...

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# FriedCranes.org



Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 6, 2012

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## Good News! We Were Wrong! Thousands of New Permanent Jobs to Be Created in Colorado by SolarReserve's® Twin 82 Story Towers Green Energy Project!



And when you have hundreds of thousands of birds killed, that spells JOBS! And not just any jobs, either. These are the kind of jobs that don't require a college education, or even a high school diploma, for that matter!

It is the perfect solution to the western slope unemployment problem - low skill, but very high paying jobs that anyone from young to old will be able to hold down.

Why very high paying? Jobs that no one else wants to do or will do simply command a premium wage and premium benefits

Of course, if folks find the stench of burnt feathers and dead, rotting flesh offensive, this may not be the kind of job they really want. But in these hard times, any job is a job.

For months we have been railing against the SolarReserve® claims that the new "green energy" jobs they would be creating in Saguache County in Southern Colorado would number in the hundreds, with alleged "indirect" jobs numbering into the thousands.

We thought that it was all PR puffery emanating from imaginative folks in Santa Monica, California, but now we have had time to reconsider.

We now know that there really will be not just hundreds, but perhaps even thousands of jobs created for the depressed income county in the San Luis Valley.

You see, we had not taken into consideration the hundreds of thousands of birds -- Great Sandhill Cranes, Snow Geese, Ducks of all descriptions and myriads of other bird varieties -- that would be incinerated (we prefer to say, "Fried") in the extraordinarily high temperature thermal killing fields surrounding SolarReserve's® ugly gray concrete 82 story tall twin towers.





These heaps of birds can not simply be buried, to rot harmlessly away in their landfill tombs.

Nopers! Those mounds of smelly bodies will have to be burned, instead, to avoid polluting the San Luis Valley Unconfined Aquifer.

Actually, it will be an added bonus to SolarReserve® profits, since they will be obliged to build a corpse incinerator, perhaps on some unused portion of their 10 square mile site, to which their stinking employees -- but really well-paid, remember -- can cart the dead bird bodies.

Burning all the rotting flesh carries with it the incredible benefit of creating heat which can be used to generate even more electricity that can't be delivered anywhere, because Xcel Energy® has announced that it isn't adding transmission capability for at least seven years.

Thus, the electricity can not be delivered to anyone, but it will still be "green energy", so it doesn't have to be practical, as long as the American Taxpayer is on the hook.

And one additional tower -- this one belching smoke -- will scarcely be noticeable next to its behemoth brothers.

At least we can say very accurately, this one really is for the birds!

But not all of the jobs created will be the somewhat nasty and repugnant ones described above, despite the images conjured up in our imagination as we show you on the left.

See, SolarReserve® was right about "indirect" jobs, too! We see many local cottage industry companies arising to fill the need for respirators, hazmat suits, nitrile gloves, shovels and tongs to pick up dead birds, yellow hazmat buckets, wheelbarrows, etc.

A few boutique perfumeries could do a land office business supplying not just perfumes and colognes, but a variety of ultra-high-power deodorant concoctions.

We foresee local entrepreneurial restaurant owners heightening their dinner crowds simply by adding on-site shower rooms where local workers can remove their odiferous stench before joining the dining throng.

You might suspect that local waste disposal companies would be able to capitalize on this boom-town atmosphere, cashing in the the monumental job of disposing of the hundreds of thousands of bird corpses. Unfortunately, that will probably not happen.



John and Erika Keyes  
Editors

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# FriedCranes.org



Saguache County, Colorado: SolarReserve®'s Final 1041

Response: January 7, 2012 (Printed in the *Alamosa Valley Courier*)

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## Our Response to CEO Kevin Smith of SolarReserve's® Response to Our Letter to the Editor in the *Valley Courier*

We are extraordinarily pleased to respond to the SolarReserve® Response of January 5, 2012 In the *Valley Courier* to our Letter to the Editor dated December 23,2011.

1. Mr. Smith categorically states that the saltpeter being explosive is FALSE (emphasis his). Well, check it for yourself at [http://en.wikipedia.org/wiki/Potassium\\_nitrate](http://en.wikipedia.org/wiki/Potassium_nitrate) Let us quote from Wikipedia: "Gunpowder, also known since in the late 19th century as black powder, was the first chemical explosive and the only one known until the mid 1800s. It is a mixture of sulfur, charcoal, and potassium nitrate (saltpetre) - with the sulfur and charcoal acting as fuels, while the saltpetre works as an oxidizer." Similar oxidizers known to chemists everywhere are potassium nitrate and ammonium nitrate. Farmers use the latter locally to fertilize their fields. Somehow, Timothy McVeigh managed to make 2-½ tons of ammonium nitrate EXPLODE (Emphasis ours) in bringing down the Alfred P. Murrah building in Oklahoma City. Was Tim McVeigh smarter than SolarReserve's® engineers? Mr. Smith's corporation's Final 1041 Application does allege that the salts are non-explosive. Unfortunately, the laws of physics and chemistry are not altered by allegation. A bit of carbon and an RPG fired by a terrorist or a tracer fired by a hunter could indeed detonate a 6 million gallon unprotected tank of a mixture of sodium and potassium nitrate.
2. His allegation that 182,000 tons of this mixture are "completely safe" is true, so long as they are not DETONATED. You can throw a stick of dynamite in the fire and it will burn -- guess that makes it "completely safe" so long as you don't insert a blasting cap and DETONATE it.
3. News reports we rely upon stated that SolarReserve® received a loan guarantee on the last day that the former DOE chief had his job. Maybe they were untrue. If so, we were wrong. However, it is dead certain that SolarReserve® received a \$737 million guarantee for the project half the size (only one tower) in Tonapah, Nevada. What is 2 x 737? We get \$1.474 Billion. Aw! We rounded it up to \$1.5 Billion. For shame!
4. We do not doubt that SolarReserve's® professional economists came up with a total value for the entire project of \$6.5 million (some 226 times less than it cost?). At 30% of real value, the Saguache Assessor would ASSESS the property for about \$1.95 million. Then, at the Colorado statutory rate of 7% of assessed valuation property taxes, we arrive at the \$135,000 annual property taxes the "professional economist" determined for the Final 1041. Wow! How many Saguache County taxpayers are able to hire a "professional economist" to determine that their taxes should only be 4/10ths of 1% of what they are REALLY?
5. Mr. Smith did find an error that we have subsequently corrected on the [www.friedcranes.org](http://www.friedcranes.org) website. Bedrock is not 4,200 feet below the site. According to the [Colorado State Department of Water Resources](http://www.colorado.gov/pacific/department-of-water-resources), bedrock is as much as 30,000 feet below the site. If Mr. Smith has a proprietary secret for erecting skyscrapers without real caissons to bedrock, instead floating them in 80 feet of water-saturated sand (can you say "quicksand"?) at the site, he should be selling it to contractors around the world who still believe you have to support skyscrapers (82 stories) with caissons to bedrock.
6. Mr. Smith states that "359 cranes flying over the project" is FALSE. Yes, here is the exact statement from his Final 1041: "During surveys, 1,306 sandhill cranes (maximum 350 in one observation more than 2 miles from the Project boundary) were observed foraging, roosting, or in flight. Sandhill cranes were not found to roost or forage within the Project boundary and most observations occurred in a matrix of winter wheat stubble and rangeland to the northwest of the Project boundary." [Click here for the actual study](#). Again, wow! Any farmer or local driving along CR G, CR 59 or CR 53 during the spring and fall migrations knows differently. Attendees at the Monte Vista Crane Festival probably have seen more.
7. 50 full-time year-round jobs. Use your own logic -- how many high pressure steam-fitters, 100 mw turbine operators and 100 mw generator mechanics do you know residing in Saguache County? Being committed to hiring locally ain't gonna get it done, sir.
8. That the salts do boil/decompose at 710 °F is TRUE. We refer you again to Wikipedia. [Sodium nitrate boils/decomposes at 308 °C](http://en.wikipedia.org/wiki/Sodium_nitrate) -- if you have internet, go to [http://en.wikipedia.org/wiki/Sodium\\_nitrate](http://en.wikipedia.org/wiki/Sodium_nitrate) to check it for yourself. [Potassium nitrate boils/decomposes at 400 °C](http://en.wikipedia.org/wiki/Potassium_nitrate) -- [http://en.wikipedia.org/wiki/Potassium\\_nitrate](http://en.wikipedia.org/wiki/Potassium_nitrate) to check it for yourself. Adjusting for our altitude of 7,650 feet and converting to Fahrenheit, we get 710 °F. Saying it ain't so doesn't alter the chemical facts. Sorry.
9. When birds can fly through thermal fields averaging 750 °F with impunity, because SolarReserve® has worked with "appropriate agencies to develop an Avian and Bat Protection Plan" as Mr. Smith claims, we will doff our hats and say,

"Boy, is youse guys good!"

In fairness to Mr. Smith, he is the CEO of a giant corporation and has to rely upon reports he receives from various paid underlings who may or may not be correct in their assessments. No one has ever built a system like that proposed for Saguache County. Let's repeat -- it ain't been done yet. So, while we applaud his grandiose dreams, we do wish he would check things out more carefully in the future. His corporation has an alliance with a huge Chinese photovoltaic manufacturer. Those non-polluting panels would be far more welcome in our pristine valley adjacent to the Great Sand Dunes National Park.

John and Erika Keyes  
Editors

For more information:  
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# FriedCranes.org

Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 10, 2012

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## Lake SolarReserve® Laps Along Shore of Former Town of Crestone and the Baca in Summer with Beautiful Rainbow Reflecting Serenely in the Waters

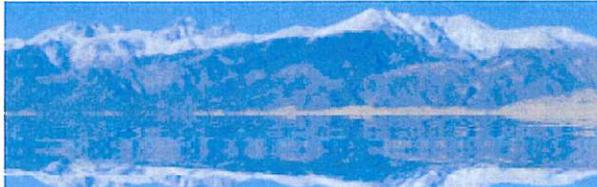
The San Luis Valley has always been renowned for its pristine beauty. But we are forced to admit that turning it into the largest and deepest man-made lake in the world would actually heighten that magnificent panorama.

We had originally viewed the possibility of a horrendous accidental or purposeful explosion at the infamous SolarReserve® massive industrial complex sprawling over 10 square miles of desecrated agricultural ground with great alarm.

But that will all be behind us after the 182 kiloton explosion, should it occur. In the simulated photo at right taken from the former Solar Reserve® complex toward Crestone, you can see nature heals itself with even more beauty.



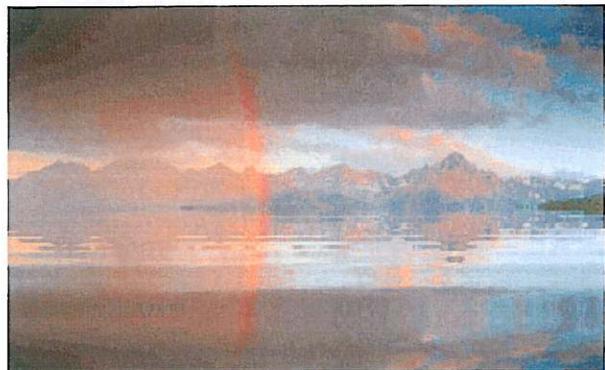
Even without God's magnificent rainbow painted so majestically against the backdrop of the town as shown above, SolarReserve® Lake would heighten and almost inconceivably amplify the spiritual beauty and uplifting intake of breath involuntarily occurring at one's arrival at the Great Sand Dunes National Park, as can be seen in our computer simulation at the left.



At the right is a simulation prepared looking to the west toward the San Juan and La Garita Mountain Ranges taken from the place where the massive SolarReserve® complex would lie rusting at the bottom of the 30,000 foot depths.

We can even envision salvage operations being mounted, similar to those exploring the Titanic, to recover equipment shards and perhaps some ugly tower artifacts.

Although the National Park, above, and the mountains at right would only be accessible by boat or a huge motor launch, such a lake voyage would be enjoyable in and of itself. It would originate, perhaps, from the huge array of boat ramps and piers at the newly constructed marina at Rancho de Taos, New Mexico.



**And Here Is Our Satellite Map of the New SolarReserve® Lake Measuring 8,200 Square Miles by 30,000 Feet Deep -- The Largest Man-made Lake in the World!**



Notice that at least South Fork would still exist after the big boom, and the upper reaches of the Great Sand Dunes National Park would still be above water, as well.

Lake-front property on the upper slopes of the Sangres and the San Juans could well be removed from Rio Grande National Forest and sold to the highest bidders to help pay for the new roads and highways that would be necessitated.

The costs for stocking the huge lake with freshwater sharks, and other species known to thrive in Lake Baikal in Russia, could also be underwritten by permits for deep lake fishing issued to the myriad of Gulf of Mexico fishermen impoverished by the slow response of the Obama administration in compensating them for their losses due to the BP oil spill. Perhaps a deal could be worked out with Scotland to transplant the Loch Ness Monster to increase tourism even more!

Of course, SolarReserve® did promise hundreds of jobs and thousands of indirect jobs would be created, but we foresee not just thousands, but hundreds of thousands of new jobs, due to the creation of Lake Solar Reserve®.

Just think of the new hotels and bed and breakfast establishments alone that would need to be built around the marina in New Mexico. New yachts and huge ferries would revitalize the east coast boat builders.

Then, new airports would be needed in Northern New Mexico to accommodate the hordes of world tourists flocking to the southern end of Lake SolarReserve® to marvel at its awe-inspiring size and beauty.

John and Erika Keyes  
Editors  
For more information:  
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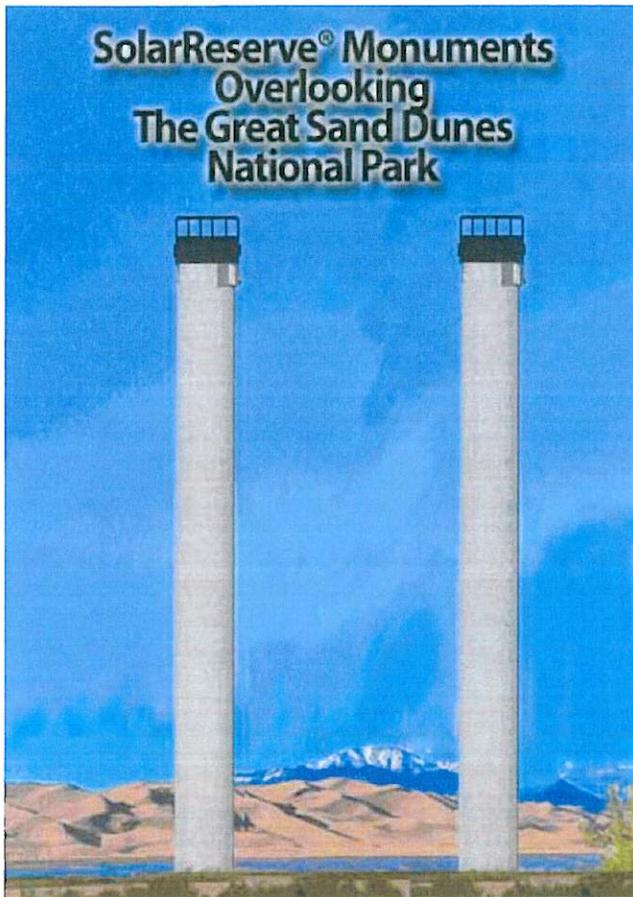
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Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 14, 2012

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**Nah! Nah! Nah! Nah! We Told You So! We Told You So! All Those "Local" Jobs SolarReserve® Has Been Talking About Are Quite Imaginary! Say Hello to PIC Group, Inc.!**



When you are past 75 years of age, people shake their heads and smile and murmur, "They're in their second childhood!" We qualify, so please be patient and indulge us as we jeer in a totally childish way!

We have been endlessly boring everyone with our observations that really high-tech jobs were well beyond the capabilities of our present Saguache labor pool.

PIC Group, Inc announced Thursday, January 12, that it will be operating and managing SolarReserve's® affiliate Tonopah Solar Energy LLC taxpayer-guaranteed Crescent Dunes Project in Tonopah, Nevada. To quote from PIC's press release, "PIC will provide full care, custody and control O&M services to the Crescent Dunes Solar Energy Plant."

A world-renowned firm specializing in turnkey operation and maintenance of industrial-scale steam turbine installations, PIC is scheduled to initiate operations later this year, with complete operation in early 2013. Originally called "Power Industry Consultants" when founded 24 years ago, they now go by the simpler PIC Group, Inc. or just PIC. (Please do not refer to them as WaterPIC after the inevitable happens here in our county!) You can read their press release here: [PIC to Operate World's First Full Scale Molten Salt Solar Power Tower](#).

**Why Not Call SolarReserve®, Building Their Ugly 82 Story Towers, by a New Name: "The Pontius Pilate Solar LLC"**

We are guessing that the liability issues that we have been pointing out for months are too great for SolarReserve's® attorneys to tolerate.

It has not escaped our notice that the Santa Monica based limited liability company has formed an "affiliate LLC" (Tonopah Solar Energy, LLC) in Nevada to "own" the great ugly behemoth industrial explosions-in-waiting. Then, one might assume that liability is further removed by simply finding yet a third, so-called "arms-length" patsy corporation to unknowingly assume responsibility for the risk, while SolarReserve® "**washes its hands of the whole stinkin' mess**" and goes on to do another project.

And if the **Patsy Involved Corporation** goes broke, SolarReserve® ain't responsible. Right? Well, we aren't lawyers, but we suspect that this is a case where transparency might actually be present, for a change.

It has been our experience that class action lawyers are really quite adept at spotting subterfuge, if it is present, and even going so far as to penetrate the corporate veil and sue the officers of all of the companies. Means lots more money for them and their clients. They might even follow the paper trail of multiple warnings about incomprehensibly large hazards.

In the event of explosive events or catastrophic environmental damage, an up-and-coming politically ambitious U.S. Attorney might even see criminal actions and act accordingly. Not to worry, guys – we hear Leavenworth ain't that bad. Just

saying...

John and Erika Keyes  
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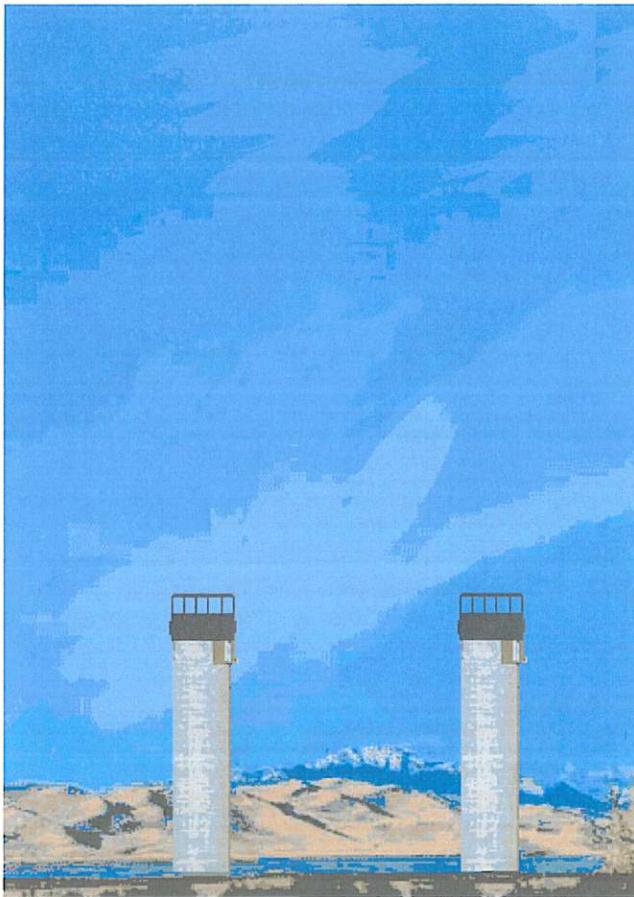


Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 16, 2012

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Kevin Smith, CEO of SolarReserve® Stated in Jan. 5 Letter to the *Alamosa Valley Courier* That Only "50 Foot to 70 Foot Pilings" Are Needed to Support 82 Story Concrete Towers!



Imagine SolarReserve's® ugly gray skyscrapers descending majestically through the San Luis Valley Unconfined Aquifer, the Blue Clay Layer and then plunging from sight forever into the 30,000 foot depths of the Confined Aquifer!

We estimate the weight of each of these ponderous 82 story tall slip-formed ugly gray towers to be at least 42,000 tons.

Let us quote SolarReserve's® CEO Kevin Smith in his letter to the editor on January 5, 2012 in the *Alamosa Valley Courier*, "The anticipated support pilings will be placed at a depth of 50 to 70 feet." He really said pilings! Instead of caissons down to bedrock as prudent engineering would require. It does seem foolhardy at best.

Quoting from SolarReserve's® own commissioned geotechnical survey prepared by Geotechnical and Environmental Sciences Consultants, Ninyo & Moore of Greenwood Village, Colorado for the Final 1041, entitled [GeotechnicalFeasibilityStudy.pdf](#) which may be [downloaded here](#), we find this statement: "The site is underlain by sediments to depths on the order of thousands of feet. The sediments in the upper approximately 130 feet consist of intermittent layers of sand, gravel, and clay underlain by a substantial layer of blue clay that may be on the order of several hundred feet thick. **The bearing capacity provided by these unconsolidated settlements is expected to be relatively low.** Foundation designs incorporating low end-bearing capacities and relying mainly on side friction should be evaluated for their constructability and economic suitability." (Emphasis ours)

We found data at the Department of Engineering Design and Mathematics of the University of the West of England in Bristol concerning load bearing capacities of pilings. The reader, CEO Kevin Smith and SolarReserve's® engineers are referred to their comprehensive study at [Bearing Capacities of Piles in Non-Cohesive Soil](#).

Let us summarize a bit for folks who don't have internet: the presumed bearing capacity of medium dense sand without water is 100 to 300 kN/m<sup>2</sup>, while water-bearing sand is nominally only about 50% of these values, but can see accelerated punch through, once the semi-viscous surrounding membrane begins an accelerating slip. Soft clays and silts like the blue clay layer actually have even less bearing capacity at <75 kN/m<sup>2</sup> and a further reduction of 50% of that value when water-bearing. If you don't calculate in kilonewtons per square meter, this would be 74 lb/ft<sup>2</sup>

Under worst conditions, each 8 foot diameter piling would support about 65 tons without any allowance for a safety factor. Are they planning to sink 650 pilings for each tower, plus more for a safety factor? The problem with that is the circumference of the tower ain't large enough to accommodate even close to that many. Damn!

So we, Ninyo & Moore and the University of West of England all disagree with CEO Kevin Smith's assertion that

mere 50 to 70 foot pilings will suffice, when every other skyscraper in the world requires multiple caissons into bedrock.

## The 175' Diameter, 8 Story Tall Tanks - All Four of Them -- Are Proposed to Be Buried Deep Enough to Allow Creation of a Retention Depression Big Enough to Hold All the Contents!

Worse yet, the four massive 6 million gallon tanks housing the explosive potassium nitrate and sodium nitrate at excessively elevated temperatures will weigh 45,500 tons each, and according to the Final 1041, these will be buried in the water-bearing sandy soil, as well. Apparently with no provisions to prevent leaching of the poisonous chemicals into the Unconfined Aquifer should a spill occur. [You can read the very disingenuous report from the SolarReserve® Final 1041 here..](#)

Much is made in that report about the alleged safety of these chemicals and the fact that there will be no reducing agents present at the site. You should visit the [Organic Chemistry Portal](#) to read an extensive list of reducing agents. Then ask yourself if Carbon, Chromium, Hydrogen, Iron, Nickel, Potassium, Sodium or Zinc might be present somewhere on the site to serve as a reducer. We do agree that carrots probably won't be present unless in an imaginary worker's lunchbox.

Their report makes this misleading statement: "When brought into contact with water or with fuels, such as gasoline or diesel fuel, the salts are non-reactive." True as far as it goes. Tim McVeigh was able to safely drive his rented Ryder® Truck to Oklahoma City with the nitrate salts and diesel fuel already mixed. Stating that the salts and fuel are non-reactive kinda misses the whole point of bomb building, doesn't it?

The rapidly oxidizing "molten salts" **will** explode if properly detonated. We feel no need to further aid potential terrorists by giving the exact method for doing so. But we can say without hesitation, "It just ain't rocket science, Bubba!"

However, from reading the Final 1041, it is clear that little thought has been given to the "rapid oxidizing" characteristics of the salts, particularly at high temperatures in tanks open to and venting into our pristine valley atmosphere and the myriad associated piping. "Oxidizing" will result in rust or other corrosion, similar to -- but much worse than -- that of salt water. One of the engineers might want to investigate that problem with a naval expert used to dealing with corrosive environments.

We want to quote from page 3 of Rolled Alloys'® treatise "Oxidation", [which may be downloaded here](#). "Of great concern are environments that promote the destruction of the (thin chromium oxide) protective layer by some chemical reaction. For example, we know of one case where minute amounts of potassium nitrate/nitrite austempering salts were present on fixturing used in a carburizing atmosphere. The salts attacked the protective oxide coating, so that a normally carburization resistant alloy carburized very quickly and uniformly." Just saying...

John and Erika Keyes  
Editors  
For more information:  
[www.FriedCrane.org](http://www.FriedCrane.org)

# FriedCranes.org



Saguache County, Colorado: SolarReserve®'s Final 1041

Editorial: January 17, 2012

## We Almost Missed the Paddle Boat! SolarReserve® Lake, the World's Largest Man-made Lake at 8,200 Square Miles, Would Permit Designation of a 12 Mile Limit and International Waters!

Since Lake SolarReserve® is so doggone big at 50 miles across, the entire center of the lake -- 12 miles off the shores -- might be regarded as international waters.

You might scratch your head and ask, "Why?" But think about it! International waters belong to no country. The State of Colorado could make no rules for those central SolarReserve® Lake waters.

Immediately paddle-wheel casinos could be plying their trade, hiring dealers and pit bosses and hostesses. It would be kinda like a brand new Monaco right where we used to live!



Gambling Casino Paddle Boat Cruising on Lake SolarReserve®

## We Can Imagine Hundreds of Thousands of Brand New, Exciting Jobs! Legalized Gambling! Who Knows What Else Would Be Legal? Maybe Pirate TV Broadcasting to the Western U.S.!



Yeppers! The sky's the limit when it comes to international waters!

Of course, it might take a few years to push the notion through Congress. But that would be even more jobs for lobbyists to grease all the open palms stretched out in Washington, DC, in order to get the enabling legislation passed.

After all, each of the honorable members of Congress would need extra moolah to be able to purchase their own water-front properties on Lake SolarReserve®.

That, in turn, would create all kinds of high-end construction jobs around the former San Luis Valley. Indeed, we think it is highly likely that Aspen would deteriorate into a second-rate destination for elite rich folk, once such a beautiful panoramic vista over miles and miles of open water was available for those who could afford it.

Even better for the elite rich folk would be the natural security afforded by the terrain. Paparazzi would have to climb 14,000 foot peaks from the east side of the Sangre de Cristos or climb the 14,000 foot peaks from the west side of the San Juans just to point a camera at someone important.

Close to shore, thousands of small craft, sailboats and yachts alike could skim the waters with great glee. Yes, we said glee! It would be fun, wouldn't it?

We aren't sure if the size of the open waters would allow tidal forces to play havoc with the shorelines. We are pretty sure that the 70 to 100 mile per hour winds that run west to east across the center of the valley would create some mighty big waves on occasion.

But, hey! That would add an element of uncertainty and danger, making the visits to SolarReserve® Lake even more thrilling.

## **Some Doubters Think SolarReserve's® Grandiose Computer-Modeled Plans Will Be a Bust... We, On the Other Hand, Think They Will Definitely Be a Boom - a Roaring, Resounding **Boom!****

For readers who have not followed our earlier editorials, they may not understand how Lake SolarReserve® could be created. Well, let us review just a bit. They plan to create the most attractive terrorist target in the United States, while noisily proclaiming in press release after press release that they are going to bring us a new age of "green energy".

Instead of potatoes, **they plan to plant 182,000 tons of high explosives (with an explosive potential equal to 6 atomic bombs) in lightly guarded tanks in Saguache County in the northern San Luis Valley.** They maintain these high explosives are not high explosives, despite the fact that they are the primary ingredient in gunpowder and fireworks. They do this by stubbornly maintaining that potassium nitrate (saltpeter) and sodium nitrate (Chilean saltpeter), when mixed and stored at 500 °F and, on occasion heated to 1050 °F, miraculously become "benign molten salts" that are "perfectly safe.

If detonated by a determined terrorist, perhaps using an RPG brought across the unprotected border just 250 miles to the south, the resultant explosion would penetrate and rupture the sand and blue clay membrane separating the Upper San Luis Unconfined Aquifer from the San Luis Confined Aquifer, thus creating the new, man-made lake. The latter aquifer is estimated to be from 10,000 to 30,000 feet deep and stretches over the entire valley extending into northern New Mexico, parallel to the Sangre de Cristo fault, the longest earthquake fault in Colorado.

We find it amusing that the current administration wrings its hands about Nebraska's Ogallala Aquifer and the Keystone Pipeline while ignoring a much more susceptible aquifer in Colorado that actually is threatened by more than a mere pipeline running above the surface.

John and Erika Keyes  
Editors  
For more information:  
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Here are links to our earlier editorials: 2011: [Nov 14](#), [Dec 20](#) 2012: [Jan 2](#), [Jan 3](#), [Jan 5](#), [Jan 6](#), [Jan 7](#), [Jan 10](#), [Jan 14](#), [Jan 16](#)  
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Not One, Not Two, Not Three, Not Four, Not Five, But **Six** Endangered Imperiled Species Directly Threatened by the SolarReserve® Project!

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Click on any image to read more about that critter



Uncompahgre  
Fritillary  
Butterfly



Black-footed Ferret



Mexican Spotted Owl



Southwestern  
Willow  
Flycatcher



Canada Lynx



Gray Wolf

The six different critters shown above reside in Saguache County. Some folks who clearly haven't taken the time to do their homework have scoffed and said, "Nah, you dummy! They are extinct in that southern part of Saguache County. They live in the wide open expanses of the valley floor"

Your editors have seen **all of them except the Gray Wolf** with their very own senile eyes on their property just 4 miles from the proposed SolarReserve® Project.

We had the sad task of having to bury one of the Mexican Spotted Owls that hunt the mice and Kangaroo Rats that live on our property -- it flew into a sliding glass door on our home, while we were still building the house.

The Flycatchers and Butterflies were everywhere this last summer. Dunno why. We must confess we only spotted the Black-footed Ferret twice, and the Lynx only once when our dog, Daisy, thought there was a scrumptious rabbit under a tarp covering our lumber pile during construction. When we pulled the tarp back to stop the scratching and whining, the lynx (not quite fully grown) sprang out and -- thank goodness -- ran away.

Other wildlife abounds as well -- for example the "threatened" Golden and Bald Eagles, the Kangaroo Rat, etc.



**New Information:** In a copyright report dated October 26, 2010, the Colorado State University Colorado Natural Heritage Program published a report upon the locations and status of Rare and/or Imperiled Species and Natural Communities known from or likely to occur within the interest for The Solar Reserve Project in Saguache County, Colorado. The report lists both the Silky Pocket Mouse and The Bald Eagle with observations in Section 6, Township 40N, Range 010E and Section 6, Township 041N, Range 009E. By professional biologists -- so besides us old folks.

You might ask, "Why aren't our County Commissioners demanding that Solar Reserve perform an Environmental Study?" **Wow, what a really good question!**

Part II - Appendix B



U.S. Fish & Wildlife Service

## Species Profile

Environmental Conservation Online System

### Uncompahgre Fritillary butterfly (*Boloria acrocnema*)

Kingdom: Animalia Class: Insecta Order: Lepidoptera Family: Nymphalidae

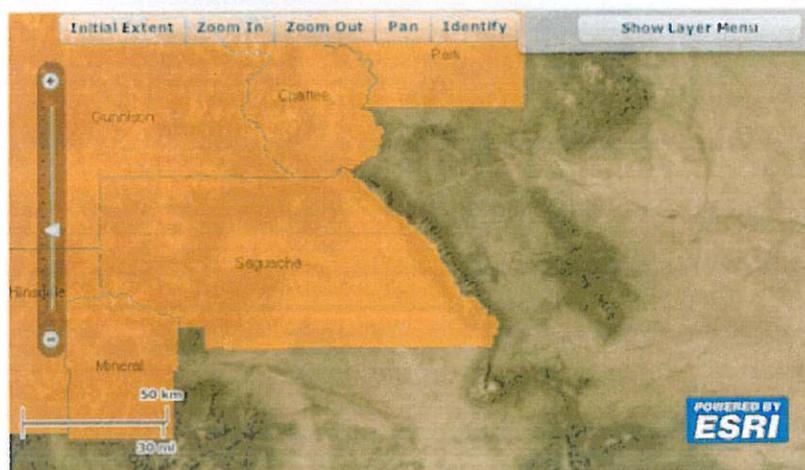
Listing Status: **Endangered**

#### General Information

The Uncompahgre fritillary is a small butterfly with a 2-3 cm (1 inch) wingspan. Males have rusty brown wings criss-crossed with black bars; females' wings are somewhat lighter. Undemeath, the forewing is light ocher and the hindwing has a bold, white jagged bar dividing the crimson brown inner half from the purple-grey scaling on the outer wing surface. The body has a rusty brown thorax and a brownish black abdomen. The Uncompahgre fritillary butterfly was discovered on Uncompahgre Peak, Hinsdale County, Colorado on July 30, 1978. It was subsequently described as a new species.



#### Map of Species occurrence



## Part II - Appendix B



U.S. Fish & Wildlife Service

## Species Profile

Environmental Conservation Online System

### Black-Footed ferret (*Mustela nigripes*)

Kingdom: Animalia Class: Mammalia Order: Carnivora Family: Mustelidae

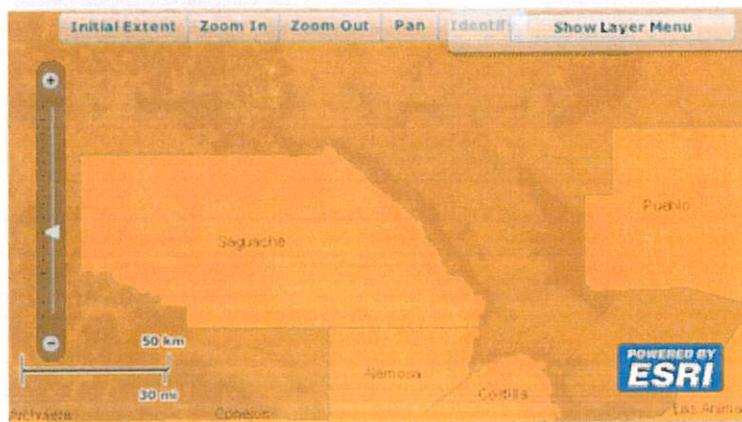
Listing Status: **Endangered/Endangered** and **Experimental Population, Non-Essential Experimental Population, Non-Essential**

#### General Information

The black-footed ferret is 18 to 24 inches long, including a 5 to 6 inch tail. It weighs only one-and-a-half to two-and-a-half pounds, with males slightly larger than females. The black-footed ferret is well adapted to its prairie environment. Its color and markings blend so well with grassland soils and plants, that it is hard to detect until it moves. It is a slender, wiry animal with a black face mask, black feet, and a black-tipped tail. The rest of its short, sleek fur is a yellow-buff color, lighter on the belly and nearly white on the forehead, muzzle, and throat. It has short legs with large front paws and claws developed for digging. The ferret's large ears and eyes suggest it has acute hearing and sight, but smell is probably its most important sense for hunting prey underground in the dark.



#### Map of Species occurrence



Part II - Appendix B



U.S. Fish & Wildlife Service  
**Species Profile**

Environmental Conservation Online System

Mexican Spotted owl (*Strix occidentalis lucida*)

Kingdom: Animalia Class: Aves Order: Strigiformes Family: Strigidae

Listing Status: **Threatened Threatened**

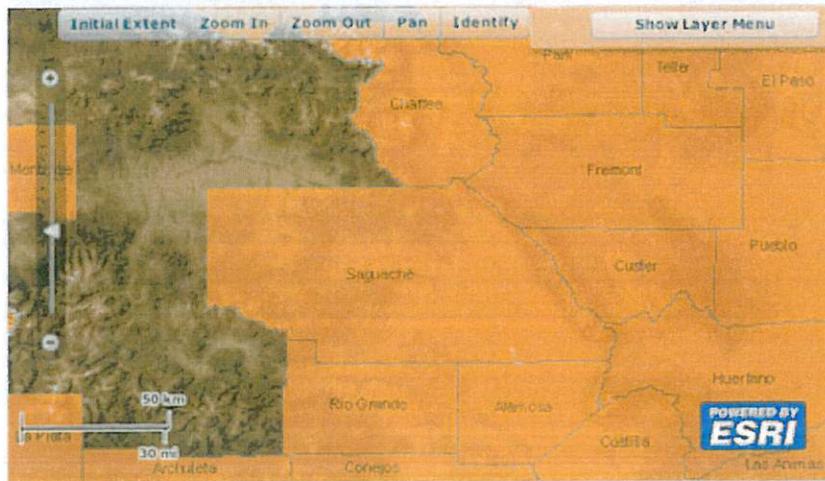
General Information

Unlike most owls, Mexican spotted owls have dark eyes. They are an ashy-chestnut brown color with white and brown spots on their abdomen, back and head. Their brown tails are marked with thin white bands. Young owls less than 5 months old have a downy appearance. Females are larger than males



Photograph by Joel Sartore; photographed at the Wildlife Center, Española, New Mexico

Map of Species occurrence



Part II - Appendix B



U.S. Fish & Wildlife Service

## Species Profile

Environmental Conservation Online System

### Southwestern Willow flycatcher (*Empidonax traillii* extimus)

Kingdom: Animalia Class: Aves Order: Passeriformes Family: Tyrannidae

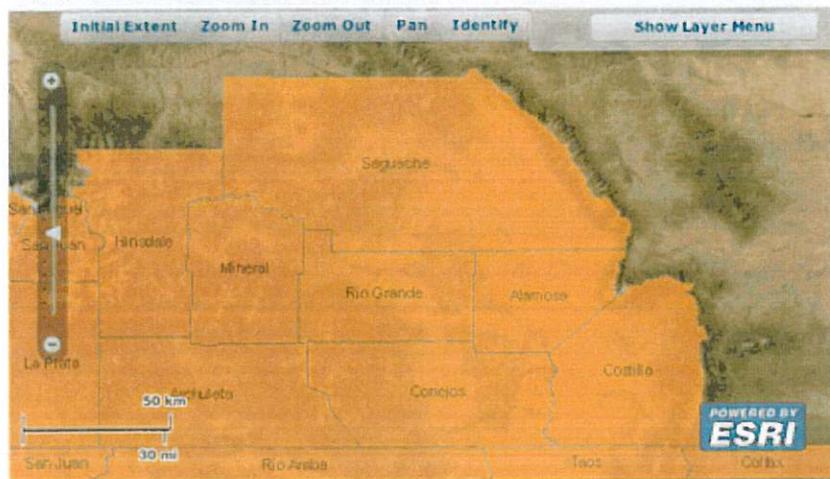
Listing Status: **Endangered Endangered**

#### General Information

Small; usually a little less than 6 inches in length, including tail. Conspicuous light-colored wingbars. Lacks the conspicuous pale eye-ring of many similar *Empidonax* species. Overall, body brownish-olive to gray-green above. Throat whitish, breast pale olive, and belly yellowish. Bill relatively large; lower mandible completely pale. Best identified by vocalizations. Call a liquid, sharply whistled whiff or a dry sprit; song a sneezy witch-pew or fitz-bew. While perched, characteristically flicks tail slightly upward.



#### Map of Species occurrence



## Part II - Appendix B



U.S. Fish & Wildlife Service

# Species Profile

Environmental Conservation Online System

## Canada Lynx (*Lynx canadensis*)

Kingdom: Animalia Class: Mammalia Order: Carnivora Family: Felidae

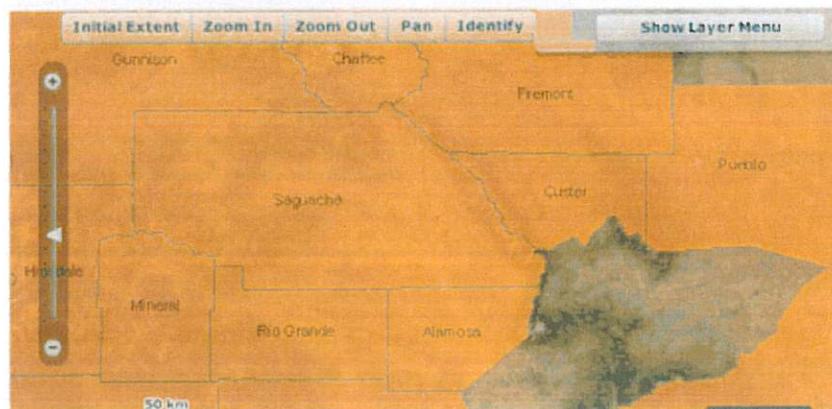
Listing Status: **Threatened Threatened**

### General Information

The lynx is a medium-sized cat with long legs, large, well-furred paws, long tufts on the ears, and a short, black-tipped tail. The winter pelage of the lynx is dense and has a grizzled appearance with grayish-brown mixed with buff or pale brown fur on the back, and grayish-white or buff-white fur on the belly, legs and feet. Summer pelage of the lynx is more reddish to gray-brown. Adult males average 10 kilograms (22 pounds) in weight and 85 centimeters (33.5 inches) in length (head to tail), and females average 8.5 kilograms (19 pounds) and 82 centimeters (32 inches). The lynx's long legs and large feet make it highly adapted for hunting in deep snow. The distribution of lynx in North America is closely associated with the distribution of North American boreal forest. In Canada and Alaska, lynx inhabit the classic boreal forest ecosystem known as the taiga. The range of lynx populations extends south from the classic boreal forest zone into the subalpine forest of the western United States, and the boreal/hardwood forest ecotone in the eastern United States. Forests with boreal features extend south into the contiguous United States along the North Cascade and Rocky Mountain Ranges in the west, the western Great Lakes Region, and northern Maine. Within these general forest types, lynx are most likely to persist in areas that receive deep snow and have high-density populations of snowshoe hares, the principal prey of lynx.



### Map of Species occurrence



Part II - Appendix B



U.S. Fish & Wildlife Service

## Species Profile

Environmental Conservation Online System

### Gray wolf (*Canis lupus*)

Kingdom: Animalia Class: Mammalia Order: Carnivora Family: Canidae

Listing Status: **Endangered** **Endangered** ([and others listed below](#))

#### General Information

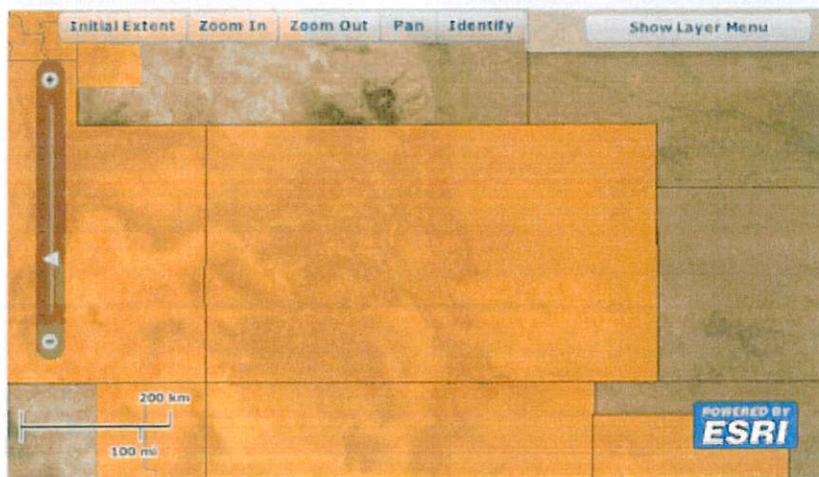
The Gray Wolf, being a keystone predator, is an integral component of the ecosystems to which it typically belongs. The wide range of habitats in which wolves can thrive reflects their adaptability as a species, and includes temperate forests, mountains, tundra, taiga, and grasslands.

#### Population detail

The FWS is currently monitoring the following populations of the Gray wolf



#### Map of Species occurrence



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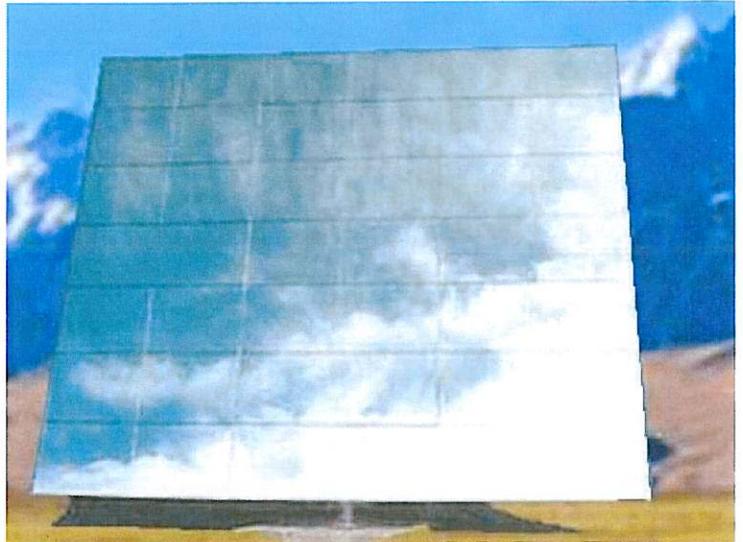
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**Just Imagine This:  
35 Thousand Sails, Each a Giant  
24' by 28', Each Supported by a  
Scrawny Single Mast Pole...**

Fully 672 square feet of surface area, more than enough to power a sail boat to hair-ruffling speeds across open expanses of water with just minor breezes.

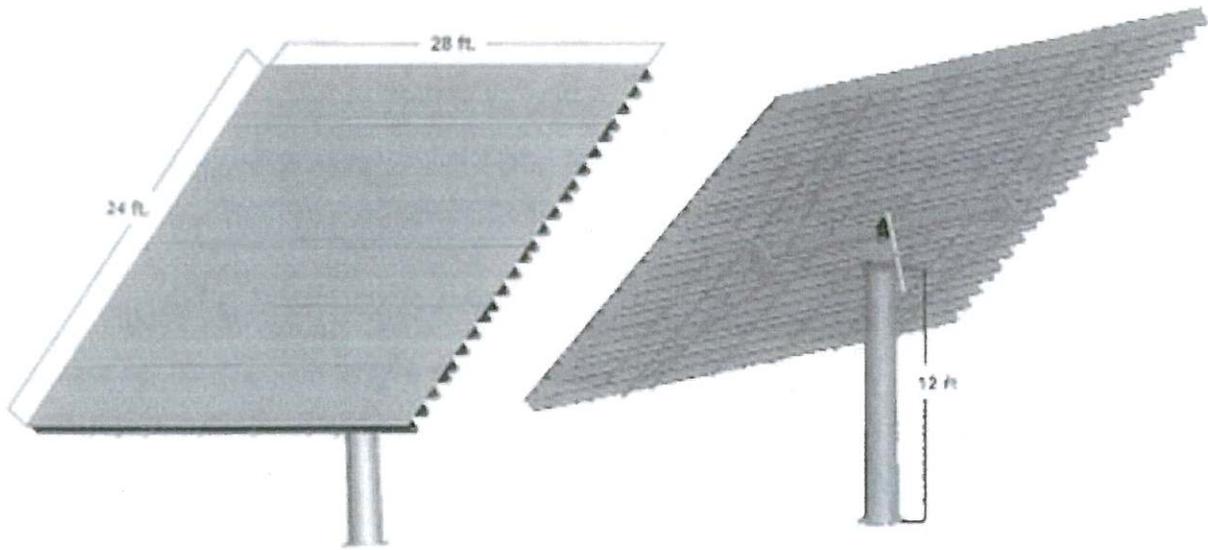
Imagine what our 71 mph "breezes" might do to all 35,000 of these sails standing so proudly on the ten square miles of the SolarReserve® Project.

Each sail be be supported by a single 12 foot tall pole, which SolarReserve® evidently believes will be sufficient to keep the mirrors on each and every one of the 35,000 heliostats **precisely aimed** at the receivers at the tops of the two really ugly gray 82 st concrete towers flashing incessantly, day and night, over the valley.



Of course, should any of the giant mirrored panels shift in the wind -- possibly even to topple -- to **precisely aim els** in the valley, could the focused energy perhaps set the surrounding grasslands or neighboring residences on fire sure it could, booby! Wouldn't matter if it did, however. We have volunteer fire departments nearby, ready to respond such emergencies, right?

**We really aren't making this up!** As you can see in the diagrams below, the SolarReserve documents, themselves, their interesting notions of withstanding the wind gusts in our valley!

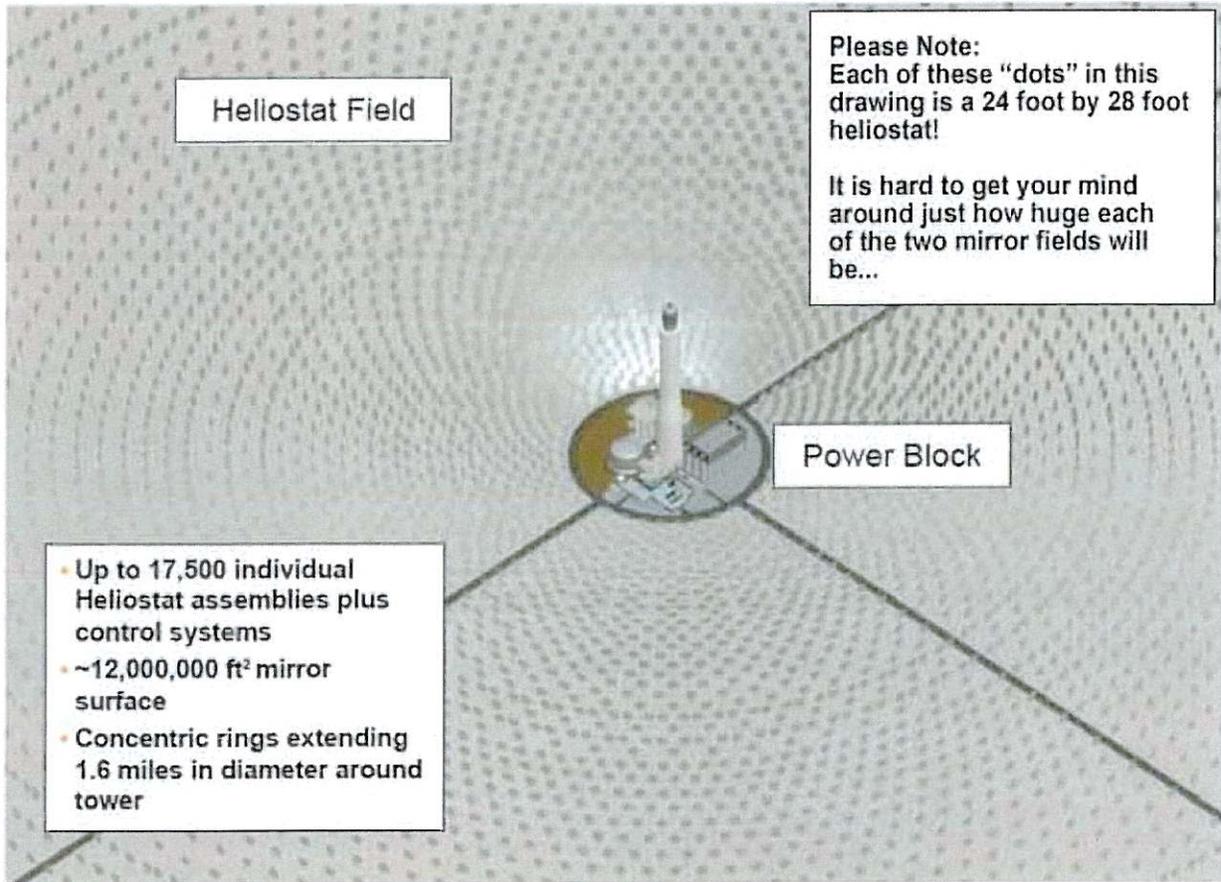


Front View

Back View

The single steel poles, if large and sturdy enough, with sufficient and much heavier bracing across the backs heliostat panels might be designed to withstands the vagaries of the winds that built and continue to build the Great Dunes. But that raises the next issue: what sort of foundations would be required for each heliostat? Tain't simple, is

Now, we keep getting questions like, "Is it really that big?" Yeppers. It is really, truly monstrous! Look at their vision they will build for the very first time. (We've added a note to their drawing) Look at the 82 story ugly gray concrete tower in the middle to grasp the scale. Then remember that this is only **one** of the two towers and fields:



SOLARRESERVE

Figure 4A - Conceptual Heliostat Arrangement

You may ask, "Why aren't the Saguache County Commissioners insisting that SolarReserve® -- well, Tetra Tech EC then -- go back to the drawing board to design safe heliostat stands and foundations?" **Wow, what a great question!**

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## Saguache County Needs a Fully-staffed Professional Building Department Perform Exacting Building Inspections



Saguache County Land Use Department enjoys a reputation with the residents of the County. It **respects** contractors and citizens engaged in building and **trusts** t

Issued building permits require the applicant to agree to with the Uniform Building Code, but do not provide inspections whatsoever by the County during const aside from a septic system siting and sizing inspection.

Due to the limited population and limited const combined with a grown up and responsible populati laissez-faire approach has worked with few hitches o years.

**But the proposed SolarReserve® Project ain't a pole barn**

A drawing on a napkin in the Oasis Restaurant will not for building plans for a ten square mile, two 8; skyscrapers, 100,000 square feet of buildings under r megawatt electrical generation facility powered by tw steam turbines rivaling those in the Hoover Dam in capa

A cynic might suggest that Saguache County was cho because of its trustful approach to building. **Certainly, it is one of the few counties in the entire United States that have even one building inspector!** But regardless of motives, this project **demand**s assiduous attention to detail, formation of a real Building Department, staffed with at least 4 or 5 full-time qualified building inspectors.

Reliable estimates place the cost of this project \$1.5 billion. SolarReserve® surely is paying Tetra Tech EC, Inc. som between 3% and 10% of that total cost to prepare all of the thousands of blueprints and engineering notes required massive undertaking.

Saguache County can't afford a fully staffed building department. But if SolarReserve® is paying somewhere betw million and \$150 million for engineering, they can afford to fund a fully functioning Saguache County Building Depar

The site grading, the concrete forms fitted with appropriately sized rebar, placing 30,000 feet deep caissons to bedr specifications of the concrete used -- every step of the construction **must be inspected if Saguache County is to e its fiduciary due diligence to protect the public safety.**

We repeat: two 82 story tall skyscrapers surrounded by 24,000,000 square feet of heliostats, with more than 100,000 feet of buildings under roof housing two 100 Mw Steam Turbines and two massive Generators, with 36 acres evaporative ponds **ain't a pole barn.** It requires scrupulous and diligent oversight during every stage of const Nothing should be left to chance when lives are at stake. The contractor is not the only stakeholder in the event of a and the inevitable lawsuits that follow. The County will also be a party to those legal actions, having to spend huge defend itself.

Woe to the County if it is shown to be the case that it didn't protect the citizens and workers with prudent foresight and careful attention to details! The County's and the Commissioners' general legal immunity from lawsuits doesn't excuse negligence, malfeasance or dereliction of duty. Attorneys love those kind of defendants! And some silly statements like "Well, they're spending a lot of money, so they'll do it right," ain't gonna cut it.

You may ask, "Why aren't the Saguache County Commissioners insisting upon adequate monies **up-front** from SolarReserve® to fund and adequately staff with 5 qualified and certified building inspectors a professional building department that will insure that all construction conforms to code?" **Wow, that is really a good question!**

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## Competent Engineering: You Don't Ask a Family Physician to Perform Heart Surgery!

With all due respect, despite their recognized capabilities and credentials, Registered P.E.'s (Professional Engineers) are simply not up to the task of properly advising the Saguache County Commissioners about the ramifications of the SolarReserve® Project.

**This will be the single largest construction project in Colorado since the construction of Denver International Airport.**

The Saguache County Commissioners would be shirking their fiduciary duties as representatives of the citizens of Saguache County were they to rely upon the engineering data supplied by the applicants: namely, SolarReserve's® consulting engineering firm -- Tetra Tech EC, Inc.®



**Tetra Tech EC, Inc.®** is a wholly owned subsidiary of Tetra Tech Inc.®, a publicly traded company with annual revenue in excess of \$2.29 billion and more than 10,000 employees in 280 offices throughout the world.

Pennies shouldn't be pinched. As President Reagan famously cautioned, "Trust, but verify." A **different** engineer should be retained to provide an unbiased and independent review of the thus-far unchallenged statements of SolarReserve® in their Preliminary 1041 Application and similar unchallenged statements in their Final 1041 Application.

There are very few firms in the United States with the expertise and track record of experience to competently advise the Commissioners in a way that assures that the applications are truthful and correct, and that the Commissioners exercised their fiduciary duties with due diligence.

One that the Commissioners might choose is **Bechtel Corporation®**. Bechtel Corporation® (The Bechtel Group) is the largest engineering company in the United States, ranking as the 5th-largest privately owned company in the U.S.

With headquarters in the Financial District of San Francisco, Bechtel had 44,000 employees as of 2009 working on projects in nearly 50 countries with \$31.4 billion in revenue.

Bechtel participated in the building of Hoover Dam in the 1930s, particularly qualifying them to advise on the Solar Reserve Project. It has also had involvement in several other high profile construction engineering projects, including the Channel Tunnel, numerous power projects, refineries, and nuclear power plants, BART, Jubail Industrial City, the largest Airport in the world by land area King Fahd International Airport in Dammam, and Kingdom Centre and Tower in Saudi Arabia, King Kong International Airport, the Big Dig, the rebuilding of the civil infrastructure of Iraq funded by the United States Agency for International Development (USAID), and the hauling and installing of more than 35,000 trailers and mobile homes for Hurricane Katrina victims in Mississippi.

Of course, the applicant should provide a non-refundable deposit of a sum sufficient for Saguache County to retain competent, comparable, independent professional engineering advice from a recognized engineering company.

You may ask, "Why aren't the Saguache County Commissioners retaining a competent, experienced, **com**

professional engineering firm to advise them about the largest construction project to be contemplated in Colorado the building of Denver International Airport?" **Wow, that is really a good question!**

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## The Economic Loss to the Entire Valley Could Be Huge!

Our valley is widely acknowledged to be a severely depressed economic area. Contributing to the various economic problems in Alamosa, Rio Grande, Mineral and Saguache Counties are income streams primarily derived from tourism and hunting, not inconsequentially from the "birders" and the folks who visit our hot springs.

There is a good chance that many Great Sandhill Cranes and other migratory wetland birds will be incinerated while flying through the ten mile high temperature thermal field near the top of the twin towers.

Any diminution in the present quantities of 22,000 to 25,000 Great Sand Cranes migrating to Monte Vista will have a decided impact on the revenues derived by the Sand Crane Festival and the businesses in Monte Vista. They can ill afford losing income. We believe this project could be renamed "The Great Sand Crane Killer"

Alamosa, Mosca, Blanca, Fort Garland, Hooper, Center, Monte Vista and Saguache all benefit from the tourists from all over the United States and the world visiting to marvel at The Great Sand Dunes National Park and our National Wildlife Refuges.



Clearly, we can not assess the impact upon the volume of this tourism by two really ugly gray 82 story tall skyscrapers glowing brightly at the top while dozens of 60,000 lumens-bright strobe lights flash annoyingly every 2/3 second reaching high into the sky. **But surely these monstrosities can't help valley tourism.**

A reduction in tourism means lost monies for all of the businesses in the valley: directly and indirectly.

Our National Wildlife Refuges in the Baca, Monte Vista and throughout the valley attract "birders" from all over the world. These folks are often overlooked as an economic boon, but they think nothing of spending a thousand bucks for a pair of binoculars or a spotting scope, even more for cameras, etc. to engage in their bird-watching. They spend large amounts of money in the valley.

They love coming here for more than the birds -- the gorgeous scenery, the pastoral landscape, the quiet. **An intricate complex reminiscent of the East German gray cities will probably not be attractive to them.** We shouldn't be jeopardizing this income stream.

They say a prophet is without honor in his own country. The same can be said for us folks living in Saguache County. We don't always appreciate the many businesses that depend upon resources in our part of the Valley.

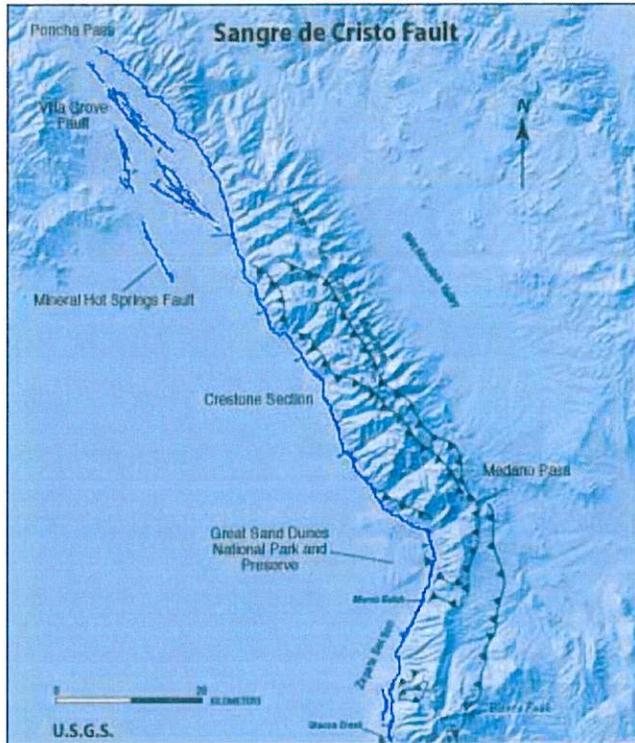
The hot springs for example: Joyful Journey, The Sand Dunes Swimming Pool, and the Orient Land Trust Hot Springs host countless visitors each year from outside the valley. Their visitors will not appreciate the huge towers looming and menacing. They may well mean lost revenues, not just for these sites, but the restaurants and businesses in Villa Moffat, Hooper and Mosca.

Perhaps the UFO Tower north of Hooper could rebrand itself as the "Ugly Towers Observation Outpost" and glean income from eager tourists wanting to study the twin aberrations "up closer", so to speak. The Alligator Farm could conduct

at night by the flashing lights.

The residents of Crestone, many of whom located here for the peaceful valley vistas stretching out to the west w front row seats in the auditorium looking directly at the two 82 story gray, formless structures glowing brightly at with the reflected sunlight by day, flashing super bright strobe lights every 2/3 second day and night. Perhaps the h effect of the repetitive flashes will assist those who practice meditation while gazing at the valley. Will some of them to move away? If so, yet another unaccounted-for economic loss to the county.

You may ask, "Why are the Saguache County Commissioners not involving the rest of the San Luis Valley citizens a County Commissioners, all of whom will surely be impacted by this decision?" **Wow, what a great question!**



## The Sangre de Cristo Fault and Earthquakes

The Sangre de Cristo fault is the longest fault in Colorado and marks the western side of the Sangre de Cristo Range, the eastern margin of the San Luis Valley and extends 180 miles from Poncha Pass at the northern end of the San Luis Valley in Colorado to near Taos, New Mexico on the southern end.

**It lies just 15 miles east of the SolarReserve® site!**

Does the SolarReserve® Project engineering design account for these unusual but possible extreme stresses on massive 82 story towers?

We don't think so, and here's why: the geology of the proposed site is extremely unique. A bit like an island on a lake. The San Luis Valley Confined Aquifer below extends downward from 10,000 to 30,000 feet. **That's what's closest bedrock lives: at the bottom of an ancient ravine through the San Luis Valley Rift or Rio Grande Rift and which runs through New Mexico, Northern Texas and into northern New Mexico.**

They can't just plunk the monoliths down on top of a rock home foundation. They need to take the caissons down to

bedrock. We're interested to see the details concerning the methodology they plan to use for drilling, casing and 30,000 feet deep concrete caissons, **while avoiding any possible contamination of our precious unconfined and confined aquifers.** We wonder if they plan to involve the State of Colorado Department of Water Resources in this interesting drilling process.

Being a California firm, SolarReserve® probably has tons of experience designing for earthquakes. That's really because no earthquake design requirements exist in our poor backwards county.

You may ask, **"Why haven't the Saguache County Commissioners demanded that SolarReserve® provide details at underground caisson support for these massive towers, and how they are providing for the event of a possible earthquake while avoiding contamination of the San Luis Valley Unconfined and San Luis Valley Confined aquifers?"** **Wow, really a good question!**

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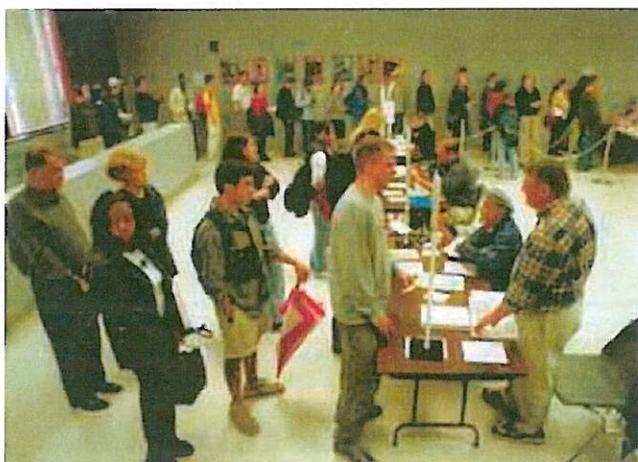
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## The SolarReserve® Project Should Be Put to a Vote of the Citizens!

We aren't County Commissioners. Nor do we want to be! But if we were, we would have recognized long ago that the SolarReserve® Project rivals the Denver International Airport in its scope when compared to the locations. **This project is certainly the very largest in Colorado history since the DIA project.**



Of course there is a difference: one was public and the other is quasi-private (if you don't count the long-suffering Alamosa taxpayers' loan guarantees) But the sheer size and magnitude of what is being contemplated demands more than a small amount of input from the residents of one very small county. A decision embarked upon by three elected Commissioners of Saguache County.

However, were we politicians confronted with the responsibility our Commissioners face, we would have been eager to solicit the approval, not just of the citizens of Saguache County, but the neighboring counties as well.

After all, the site is just four miles from Alamosa County and ten miles from Rio Grande County. The citizens of those counties will be extraordinarily angry about being cut out of the project.

This is a massive industrial complex that will forever change the character and landscape of the entire San Luis Valley.

Usually, with questions of this magnitude, the citizens are given a more direct way to express their views to the officials. **They are given an opportunity to vote upon the project!** Clearly the SolarReserve® Project deserves this consideration for the views of the impacted citizenry.

We citizens all vote on school bond, library bond and tax increase issues in our regular and special elections issues, which are considered important enough to be put on the ballot, pale by comparison!

Were the Commissioners sensitive to the magnitude of this project and its impacts on the wildlife, the environment and the economic well-being of the entire valley, they would immediately put a hold on this application and, in coordination with the County Governments of Alamosa, Rio Grande and Mineral, schedule a special election allowing the citizens of the entire San Luis Valley to vote on this project.

You may ask, **"Why are the Saguache County Commissioners not involving the rest of the San Luis Valley citizens and the other County Commissioners, all of whom will surely be impacted by this decision?"** **Wow, what a great question!**

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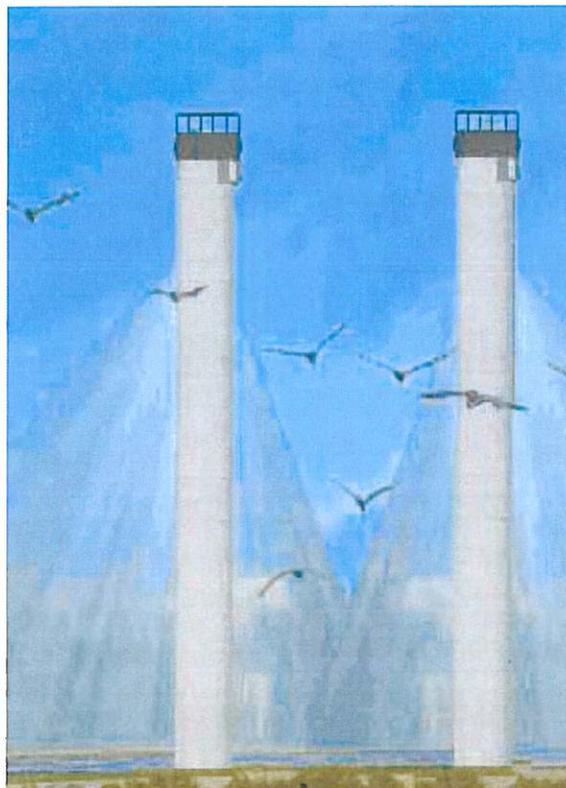
## Fundamentalist Islamic Terrorists Will View the Twin Towers Next to The Great Sand Dunes National Park Very Differently than We Americans Do...

It's a horrid thought to contemplate, but those massive towers will be a tempting target for terrorists. Any attack upon them would be impressive and certainly glean the attention of the entire world.

SolarReserve® is proposing to store 24 million gallons of highly explosive potassium nitrate (saltpeter) and sodium nitrate (Chilean saltpeter) at their massive industrial complex. These "benign eutectic salts" actually will have the explosive potential of 182,000 tons of TNT, which, if detonated, would ravage the entire San Luis Valley with a blast zone estimated at 40 miles!

Tourists from all over the world visit our local natural wonder to marvel at the unusual geologic phenomenon.

A few security guards will clearly be insufficient to protect the towers and explosive salts from attack. Heightened security similar to that which presumably surrounds our nuclear installations is called for. **This will be the largest solar installation anywhere in the world.**

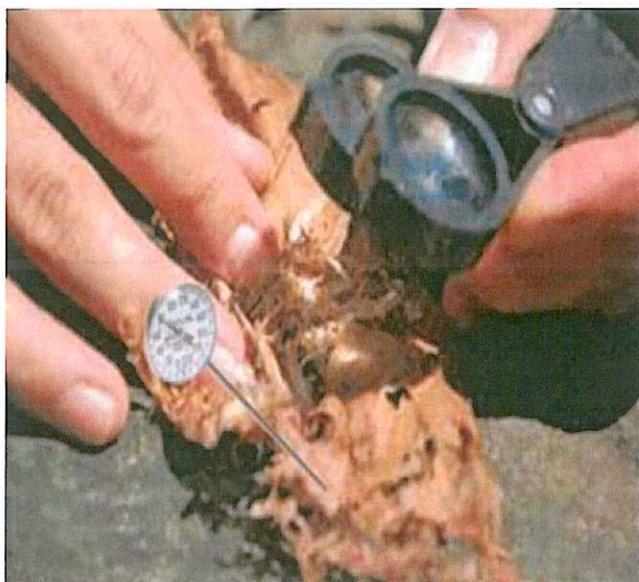


Worse yet, the proposed site is only 250 miles from an unprotected border to the south. And Saguache County is protected by a small Sheriff's office that clearly cannot provide the kind of resources needed to adequately defend the twin towers.

You may ask, "Why aren't the Saguache County Commissioners requiring the SolarReserve® corporate executives seriously address this very real possibility of a terrorism incident?" **Wow, what a great question!**

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## Don't Compare the Heliostats with Frying Magnifying Glasses!

Anyone who has fried a bug with a magnifying glass at that there won't be high temperatures around the towers. But the expedient of putting an oven thermometer where a bug is being fried or tinder is being kindled with that the temperature around the focus point of light gains in temperature as well.

Heat is transferred in three different ways: convection, conduction and radiation. All three methods of heat transfer are present with the SolarReserve® towers. Heat radiates from heated objects.

The heliostats -- all 24,000,000 square feet of them -- focus the top of the twin towers will not just radiatively heat receivers at the top of those towers. Heat will be transferred to the towers themselves by conduction, not all heat absorbed by the receivers, meaning that the excess heat

somewhere. This is not a static paradigm. Convection, conduction and radiation are interacting continuously with sunshine is being reflected from the heliostats.

The heliostats will not be perfect focusing devices. Some of the reflected light will "miss" the receivers. Theory and practice in the real world is another. In addition, Saguache County is famous for its complex inversion layers contributing to the renowned mirages so endemic. These temperature inversion layers can only complicate the transfer analysis.

Much more analogous is the popular 9" x 12" solar oven, at the right. Open up the mirrored wings on a sunny day, and you quickly have temperatures in the center of 400° or more -- plenty high enough to cook your meal.

This example much more closely approximates the conditions above the heliostats and around the towers. A giant oven is created -- stretching over the ten mile site.

If the temperature at the top of the towers is 2000 °F to effectively heat the highly explosive eutectic salt solution to 1050 °F in a dynamic heat transfer process, it can be predicted that the surrounding ambient temperature will surely be sufficiently high enough to fry any of the thousands of wetland birds flying through the high temperature field along their usual migratory path.

You may ask, "Why aren't the Saguache County Commissioners requiring the SolarReserve® engineers address this possibility



of frying our migratory wetland birds?" **Wow, what a great question!**

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Can The Ancient Rickety Wooden Towers for This 230 Kv Electrical Transmission Line Really Carry the 200 Megawatt Electrical Output from the SolarReserve® Installation? **Nope! Someone Is Omitting Information!**



Contemplate, if you will, the so-called "High Voltage Towers" crossing the SolarReserve® Site shown at the left. Inspire confidence in you? This highlights the dirty little secret about the SolarReserve® Project: **there ain't a way to get the 200 megawatts that would be generated out of the San Luis Valley.**

We can only guess that they have a strategy to convince landowners from here to the plains to grant easements for the largest electrical transmission lines in Colorado to cross their properties. Landowners who will not be a bit concerned about the massive EMF radiation near their homes.

And the cost? **\$1 million per mile** for the towers and lines, not including easement purchase and eminent domain court fights. **Unfortunately the existing 230 Kv lines ain't capable of carrying the 200 million watt output of the plant!** Why? Xcel® is already using the antiquated lines. And Tessera is also claiming they will be using those self-same lines. Kinda like trying to squeeze an elephant through a garden hose!

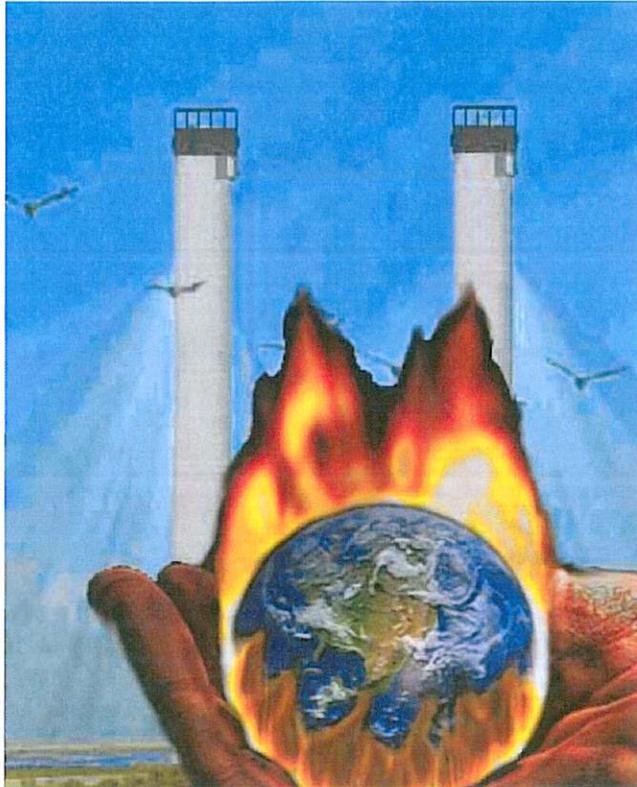
There are a great many myths about losses during transmission, as well. Indeed, phony postings to sites like wikipedia claim only 6% - 8% losses. Don't You believe it! Before they take it down, here is the actual skinny from the United States Department of Energy in their "[Energy Efficiency & Renewable Energy Pages](#)" relating to Electric Resistance Heating. (If you click on that link and some DOE faceless lackey has removed the page, we took a picture of it today, November 4, 2010 and [you can see it here](#)).

And we quote them exactly: "Electric resistance heating converts nearly 100% of the energy in the electricity to heat. However, most electricity is produced from oil, gas, or coal generators that **convert only about 30% of the fuel's energy into electricity.** Because of electricity generation and transmission losses, electric heat is often more expensive than heat produced in the home or business using combustion appliances, such as natural gas, propane, and oil furnaces." (Emphasis ours)

That is precisely where the dirty little secret leaks out! **70% of the energy is lost!** This means that electricity always costs about **3 times as much** as other energy sources, be it natural gas, propane or gasoline. You might think about that "inconvenient truth" before you rush out to buy an electric car, just so you can be environmentally sensitive -- you'll be paying 3 times what you'd pay for gasoline!

Now, electricity is our friend. It is far and away the most convenient and clean way (at least in your home) to power stuff. Well worth paying three times as much for that convenience.

You may ask, "Why haven't the Saguache County Commissioners demanded that SolarReserve® disclose exactly how they really plan to deliver the energy they produce?" **Wow, that is really a good question!**



## Changes to the Sand Luis Valley Weather -- Our Own Local Global Warming?

The San Luis Valley is a 10,000 square mile high desert lying at an average elevation of 7500 feet. This plateau is **bowled**, surrounded by some of the highest mountains in Colorado.

This giant bowl results in some of the most interesting weather in the entire state. Locals know the wind can be blowing from the east and from the west in the very same field.

When the wind is not blowing, we get inversion layers. The upper valley (Saguache County) is renowned for its weather due to those layers at different temperatures.

Means that temperatures can **lie in layers** that change significantly. The excessive temperatures produced by SolarReserve® Twin Towers will not **all** be captured by collectors at the top of the towers.

So, where does all that excess heat go? Thermodynamics would be quick to point out that most of the excess heat rises by convection, dissipating "harmlessly" in the atmosphere. **Yeah, if it weren't for those pesky inversion layers and our perfectly mountain-range-surrounded bowl.**

We would not be surprised if the average temperature in our pleasant valley rose by 20°, 30° or even more. Our mid-80's could metamorphose to 100° or 110° or even more during the summer. Think of it this way, we are putting a 24,000,000 square foot miniature sun on the valley floor just north of Hooper.

How will that eventuality affect our year-round climate? Worse yet, could it have unforeseen consequences on our agriculture in the valley?

Is this a "Chicken Little" doomsday prediction? We don't really know. And that's the problem. Something on this scale could really have unforeseen and unfortunate consequences.

You may ask, "Shouldn't the Saguache County Commissioners insist upon extensive localized monitoring followed by competent computer modeling to insure that they aren't frying us all?" **Wow, what a great question!**

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## Will The Great Sandhill Cranes and Other Birds Be Safe?

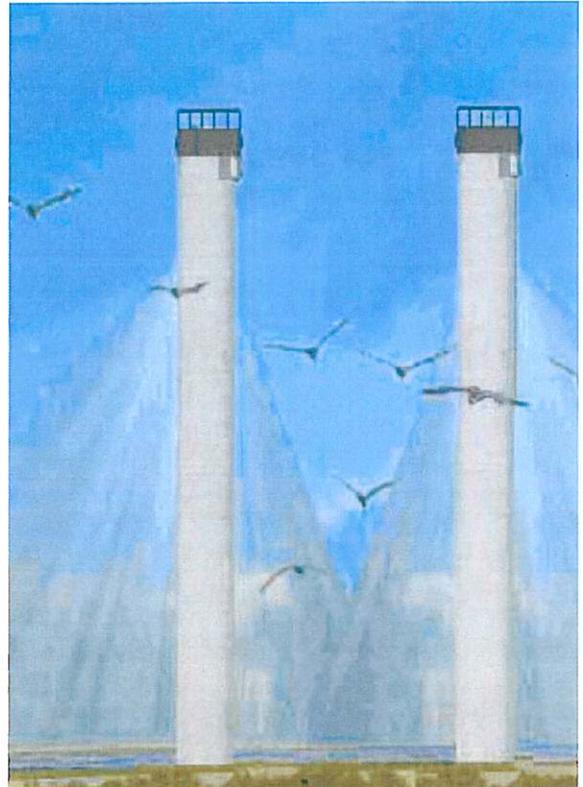
We don't think so. We are not engineers. That being said, we have great concerns for the safety of these magnificent birds, not to mention the tens of thousands of other wetlands birds that migrate directly across the path of the proposed SolarReserve® Project every year.

Especially of concern are the Mexican Spotted Owls and Southwestern Willow Flycatchers that we see regularly on our own property, just 4 miles away from the proposed site. **Both of these beautiful birds are on the Endangered Species List!**

Admittedly, we don't know if these precious endangered birds migrate over the SolarReserve® Site, but it stands to reason that they do. It is only four miles away, after all!

The 24,000,000 square feet of SolarReserve® Mirrors are continuously focused to the tops of the 82 story tall gray towers, generating heat in excess of 2000 °F, glowing brightly, like twin miniature suns for all citizens of the valley to admire.

The point, of course, is to capture some part of that thermal energy, transferring it to the eutectic salt solution circulating at extraordinarily high temperatures (1050 °F in the hot tanks and cooling to 550° in the cool tanks)



Unfortunately, the laws of thermodynamics dictate that massive amounts of that focused energy will **not** be captured and transferred. You may well ask, "Well, what happens to that lost focused and amplified energy?" Good question. It will **linger and hang about** before dissipating more or less "harmlessly" in the surrounding area and to the upper atmosphere (Talk about Global Warming!) However, there will probably be a thermal field reaching 500° or more as low as 200 to 300° over the 10 square miles of mirrors.

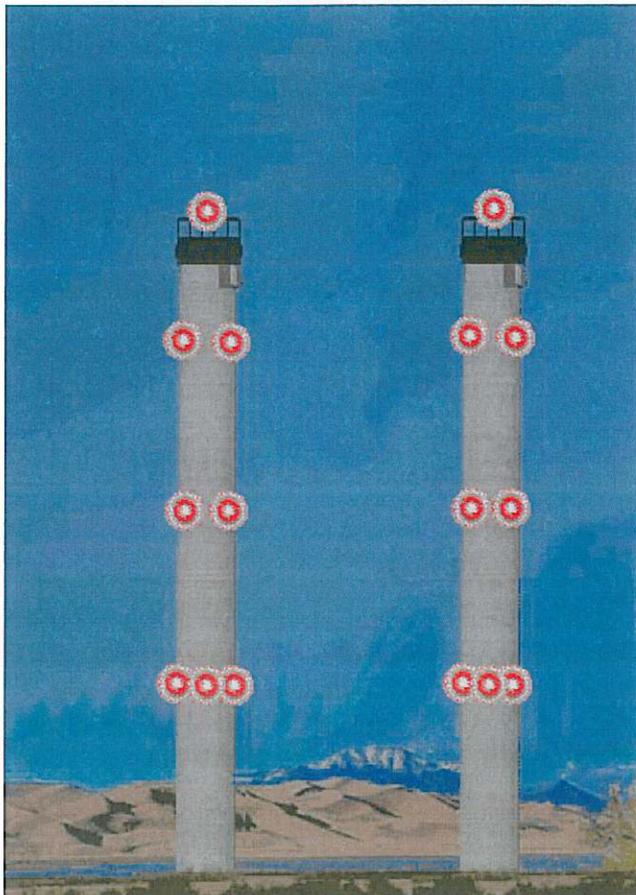
It is our fervent belief that any waterfowl or other migratory birds flying through that thermally elevated region entering a "kill zone". Perhaps we're wrong. But nowhere in the pleasant SolarReserve® 1041 do we find this critical important issue addressed.

It is to be assumed that the highest scatter temperatures will be at the higher elevations over the site -- exactly where waterfowl and other birds fly. Presumably these extraordinarily high temperatures will not be so elevated close to ground level. The Endangered Species Uncompahgre Fritillary Butterflies which are prevalent in this part of the Valley may therefore, survive this convection oven, if the updrafts due to natural convection do not sweep them up into the inferno.

A significant complicating factor lies in the 36 acres of evaporative ponds contemplated containing toxic substances. These will serve as giant magnets drawing the birds right into the convection oven. It is in the nature of the birds. So even if they survive transversing the blast furnace, they can docilely land and partake of the toxic cocktail prepared so obligingly for them by SolarReserve®.

In addition, these ponds will be attractive to ground mammals, including the Endangered Black-footed Ferret and Lynx which absolutely inhabit this part of the valley.

You may ask, "Why are the Saguache County Commissioners not involving the rest of the San Luis Valley citizens and County Commissioners, all of whom will surely be impacted by this decision?" And why is the Environmental Protection Agency absolutely refusing to take any action whatsoever? **Wow, what great questions!**



## F.A.A. Requirements for Aircraft Safety Will Create Massive Visual Pollution Day and Night

At the left is an artist's simulation of the twin tower night for aircraft safety (at least as present SolarReserve® in their Final 1041) Strobe lights actually be much, much brighter than we can show |

The F.A.A requires 60,000 candelas (lumens) for strobe light. By comparison, the typical 75 watt produces 900 lumens.

These 60,000 lumen strobe lights would flash **every second both day and night!**

Worse yet, these towers would be the tallest structures on the western slope of Colorado.

## Trying to Visualize Just How Huge Ugly Gray 82 Story Towers Would |

It really is hard to imagine, in the absence of any reference points, just how tall these towers will be. The image shows the three story Saguache County Courthouse scale at the base of one of the towers. For more examples [click here](#)

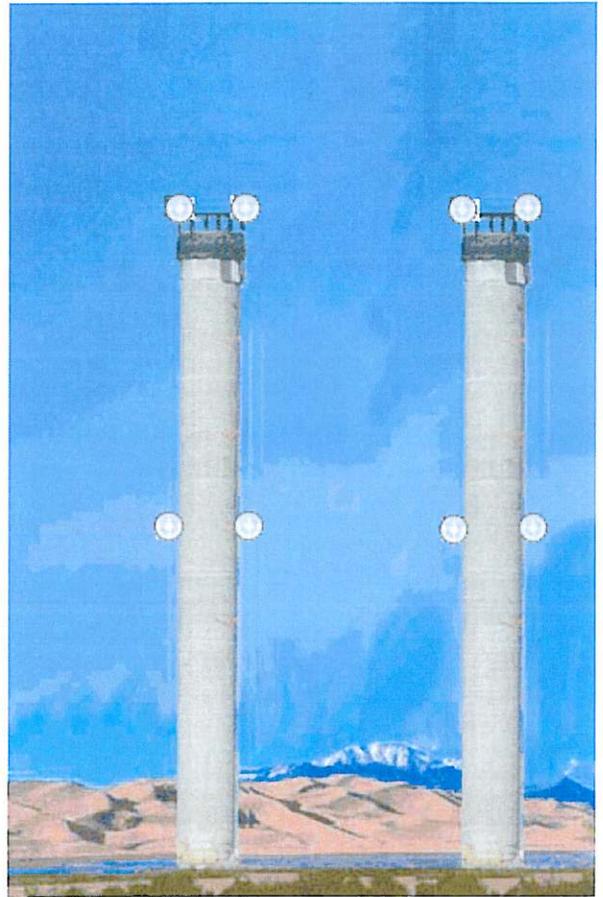
On the other hand, these incessantly flashing strobe light towers illuminating the previously pristine valley night sky will eliminate the expense of installing and maintaining street lights in Center, Hooper, Moffat and Crestone!

## **The Massive 82 Story Towers Will Flash All Day, As Well -- Focusing Attention Away from the Great Sand Dunes National Park**

It is hard to believe that the National Park Service is not raising hell all over the place about this potential pollution and detraction of a park renowned for its natural beauty, wildlife and setting at the base of the majestic Sangre de Cristo mountain range.

You may ask, "Why in the world aren't our Saguache County Commissioners seriously addressing the problems of visual pollution and acoustic pollution caused by 2 100 Mw steam turbines powering 2 huge electrical generators and the addition of an absolute blight -- an atrociously massive, ugly set of towers -- to the land just west of the beautiful Great Sand Dune National Park?"

**Wow, that is really a good question!**



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## Some Minor Wetlands at the Eastern Edge of the Site

Of course, they aren't huge. But they will be dwarfed by the **36 acres of toxic evaporative ponds** SolarReserve® plans to build to store sludge from the processes at the towers.

Why does that matter? Those would be additional **poison wetlands** built right where they will attract migrating wetland birds that have been traveling directly over this site for centuries.

Worse yet, they are planning to line those ponds resting near the water level of the San Luis Valley Unconfined Aquifer with mere 40 mil plastic liners. Well, plus "leak detection" equipment! Any idea how long it would take to empty 36 acres of ponds after a leak is detected? Or just what container you would use to hold 36 acres of sludge in a big hurry to contamination of the valley's drinking water once the leak is detected?



You might ask, "Why aren't the Saguache County Commissioners requiring SolarReserve® to address these problems?" **Wow, that is really a good question!**

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## Why Use Rubber Stamp Commissioners When a Better, Rubber Stamp Alternative Exists at the Federal Level?

SolarReserve® is going at this the hard way -- missing a bet that lies just within their grasp!

Just in the month of October, 2010, Interior Secretary Salazar (brother to our own San Luis Valley Congressman Salazar) OK'ed not one, not two, but **six** massive solar projects on federal lands in California and Nevada.

Over the vociferous objections of -- well, you know, the people in those areas -- the voters who clearly don't understand what's important nearly as well as the Washington D.C. power elites.

Well, we have nearly 2 million acres of federal lands in the Rio Grande National Forest and tens of thousands of BLM Land Management lands right here in Saguache County.

SolarReserve® should just ask our San Luis Valley born and raised Kenny to approve their wonderful solar towers sited on the thousands of acres on BLM land north and east of Moffat -- we're certain Commissioners Pace and wouldn't object! Or their towers could rise majestically on the 11,460 acres of BLM land currently being leased to Garita by the L Cross Ranch -- we're certain Commissioner Spearman wouldn't object!

Even if endangered species might be eradicated, it's OK. Just get an accommodating Governor Hickenlooper to approve "relocating" the endangered critters, like Governor Schwarzenegger did in November 2010 in California couple of the solar projects Secretary Salazar approved.

If he can grandly approve six projects further out to the west, in California and Nevada, **why not three or four more here in Saguache County?** Or, better yet, adjacent to the Salazar Ranch -- we're certain Former Congressman John wouldn't object!

Federal Mandates of just about anything these days seem copacetic. And it seems that Congress has no inclination whatsoever to question any of the actions of this administration, no matter how high-handed they are. And you? supposed to sit back and grin and bear it!

You may ask, "Why isn't SolarReserve® bypassing the obliging Saguache County Commissioners and just going to -- to Interior Secretary Ken Salazar -- to eliminate all this tedious bureaucratic stuff?" **Wow, what a great question!**

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## Designing for 150 mph Wind Speeds and F1 Tornadoes

We only have a few tornados in Saguache County -- just 3 since 1980 and pretty small: one F0 and 2 F1 -- occurring in June and July.

Alamosa has experienced more. Seven since 1955 -- 2 at F0, 4 at F1 and one at F2

As can be seen by the data below, the maximum winds over the past 19 year period in Alamosa, Colorado average 71 miles per hour annually.

Unfortunately no data has been collected for the corridor precisely 4 miles to 7 miles north of Hooper, Colorado. However, local residents can attest that winds exceed those experienced in Alamosa on a regular basis due to the different topology.



Maximum Recorded Wind Speeds in Alamosa, Colorado:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
58 mph	62 mph	60 mph	71 mph	63 mph	69 mph	66 mph	51 mph	54 mph	62 mph	63 mph	54 mph	71 mph

Note: Tower Height 30 meters. Source: NCDC (National Climatic Data Center)

But even using the data captured for Alamosa at 30 feet high, we can assume that 82 story tall, 656 foot high tower SolarReserve® will experience extreme wind loading far in excess of the 30 feet measurements.

The SolarReserve® engineers need a factor of safety when designing free standing 82 story tall towers exposed as 1 **obstructions to the howling winds and dust storms** in the central valley. Probably the minimum safe design speed 150 mph or even more in light of the F1 tornados that occur from time to time. And don't forget to account for the in caissons reaching down 30,000 feet (nearly 6 miles!)

You may ask, "Why haven't the Saguache County Commissioners insisted upon data confirming that the r **structures will be safely designed to stand up to valley winds?"** **Wow, that is really a good question!**