Santa Barbara County
Air Pollution Control District

SBCAPCD COMMUNITY ADVISORY COUNCIL
SUMMARY of QUESTIONS & ANSWERS – OCTOBER 9, 2013 MEETING

The following questions were asked during the Offsets Presentation to the Santa Barbara County Air Pollution Control District's Community Advisory Council on October 9, 2013. The answers provided below represent those provided by staff at the meeting (to the best of our abilities) and also include further clarification after-the-fact to help provide a more comprehensive response where we believed it fitting to amplify on our original responses.

1. *What types of companies are we talking about (being subject to the offset requirements)?*

   Basically all types, including industries such as: oil and gas production, electronic manufacturing, medical device manufacturers, commercial space, higher education and mineral processing. Specific names include: United Launch Alliance, Venoco, Imerys Minerals, ExxonMobil SYU, UCSB, ERG Resources, Aera Energy, C&D Zodiac, Santa Maria Energy, Marian Medical Center, NuSil Technology, Granite Construction, US Navy, Santa Mara IWMF, Lash Construction, The Okonite Company, Greka Oil & Gas, E&B Resources, Trisep Corp., Medtronic, Innovative Micro Technology, Central Coast Wine Services, Dierberg Winery, Cambria/Byron Winery and Santa Maria Refining Company.

2. *Is the cost price curve directly proportional to availability?*

   Yes. For the first 11 years when ERCs where generally available costs were generally contained. When availability started to dwindle around 2008, ERC costs started an exponential increase. NO_x ERCs sold for $5,000 per ton in 1997 and now they sell for $115,000 per ton (a 2,200% increase). It's a classic supply and demand situation. This figure from the presentation shows the NO_x price curve.

3. *Do we have a curve showing ERC availability?*

   Yes. This chart from presentation shows the ERC availability as of May 2013. Current active ERCs are posted to our webpage here.

4. *Where is the North/South Zone boundary?*

   Essentially it is a line that runs east-west along the crest of the Santa Ynez Mountains extending towards the ocean to the mouth of Jalama Creek. For the exact definition, see "Zones of Santa Barbara County" in District Rule 102 (page 102-17).

5. *Could you explain more about the 6:1 offset ratio?*

   This requirement was added to the 1997 revisions of our New Source Review (NSR) regulation. In general, the location of an ERC should be in an area that is generally close to the project requiring the offsets. The concept being that the emissions being reduced should mitigate the same general geographic area that the project's new emissions would impact. The EIR developed for the 1997 NSR rulemaking package discussed this concept and addresses it by noting the impacts that the local mountains would have, thereby providing its justification in support of the 6:1 ratio. The staff

report and EIR, however, have no quantitative analysis supporting this ratio. These documents do not distinguish the difference between offsets required for ozone precursor pollutants (e.g., NO_x and ROC) versus offsets for specific pollutants (e.g., SO_2). For the former, ozone is a regional pollutant that is addressed on a larger geographic area (air basin). Our State-designated air basin for ozone is the South Central Coast Air Basin; which includes Ventura, Santa Barbara and San Luis Obispo Counties. Lastly, our state ozone Clean Air Plan does not use the "zone" concept in its outline for showing how our County will attain the state ozone standard. The zone concept noted in the staff report and EIR better support the use of higher offset ratios based on distance and other factors for non-regional pollutants (e.g., SO_2 impacts).

6. *Does VOC include pure methane?*

   No. We use the term Reactive Organic Compound (ROC), but it is generally interchangeable with the term VOC (i.e., Volatile Organic Compound). ROC, as defined in our Rule 102, excludes compounds such as methane, ethane and CFCs.

7. *Is it a safe assumption that the reason we don't have (enough) VOC ERCs is because attainment is limited to anthropogenic activities? Could we go after naturally occurring seeps in the SB Channel?*

   One main reason that the pool of ROC (and NO_x) ERCs are in short supply is that the District, State and EPA have established numerous emission control rules and that there is not much left to control. The emission offset regulations were originally developed in the 1970s when there were many large sources of emissions not subject to control requirements. So back then, the offsets "concept" made a lot of sense and worked well. Today, in Santa Barbara County, that 1970s concept no longer fits our reality and finding surplus emission sources is, although still possible, a much more difficult process to achieve. As for seeps, yes, the District would entertain reviewing and approving any request to cap and collect seep emissions. Not only would this create ROC ERCs, but it would also create GHG ERCs (methane) which is now a marketable item.

8. *Does our modeling show that if we change the 6:1 ratio that we might get some deposits in the South Zone bank?*

   No, but we believe it does two things. First, it opens up the market such that South County entities can purchase ERCs created in the North Zone. Second, it provides an opportunity for South County entities to invest in the creation of ERCs from North County sources. Basically, the idea is that since ozone formation is a county-wide (regional) concern, that revising the 6:1 ratio downwards would level the playing field and, at a minimum, provide South County entities an opportunity to procure and/or create ERCs.

9. *What kind of projects in the South County are we talking about?*

   There are two types. First are companies that already triggered the thresholds for offsets. This includes companies such as ExxonMobil and The Point Arguello Companies. Second are companies that are close to exceeding the daily or annual offset thresholds. This includes companies such as UCSB, Venoco, NuSil Technology, US Navy, Lash Construction, Trisep Corp., Medtronic, and Innovative Micro Technology.

10. *Is the pipeline from the current Santa Maria Regional Landfill a benefit to the generators to heat the Marian Medical Hospital?*

    Yes. Landfill gas that is collected at the landfill used to be exclusively burned in their flare. Now the gas is shipped via pipeline to a 1-MW internal combustion engine generator located on the Marian Medical site. Although designed to capture the heat from the engine for use by the hospital (thereby lessening the need for Marian to use their boilers), this aspect of the project has not been utilized. None-the-less, landfill gas that would otherwise been burned is now generating electricity for the hospital and the grid; a good thing. From a criteria emissions (e.g., NO_x) viewpoint, the emissions from the electrical generator are actually greater than from burning the gas in a flare. This is due to lean burn internal combustion engines creating higher levels of NO_x than external combustion devices (e.g., flares or boilers) and the types of control technologies available for such equipment.

11. *Why doesn't the District provide an offsets exemption for essential public services as done by other air agencies?*

    Back in 1995-1997 when we were working on the new NSR rules, the District had indeed proposed a Community Bank that could then be accessed by essential public services. This Bank was to be funded by taking a certain percentage from new ERC projects as the program was implemented. Comments from the CAC and the public resulted in the Community Bank being removed from the final rules.

12. *Are military installations on the South Coast AQMD's definition of essential public services?*

    No. We could not find them in any air agency definition (e.g., South Coast, Ventura). As a note, VAFB is one of the larger holder of ERCs in the County.

13. *Where would the South California Edison peaking plant be located?*

    We are not sure. That would be up to SCE and the public decision makers.

14. *Is there some reason why the offsets issue wasn't presented to the CAC before the APCD Board of Directors?*

    Yes. As you know, the role of the Council is to review rules and clean air plans, and make recommendations to the APCD Board. The District deliberately took the "slow path" in addressing the offsets issue by first convening a Workgroup of regulated and community members to first discuss the issue in its broadest sense. We wanted feedback on whether a consensus existed as to whether the offsets issue was a problem or not. In fact, this broadly represented Workgroup unanimously concurred that a problem existed and that the District should seek out potential solutions. We then utilized the Workgroup's experience, expertise and concerns in developed potential solutions for the Control Officer to consider. This was completed in April 2013. Going into the Workgroup process, the District did not know whether we would be advancing any specific rulemaking changes or not. This, in a nutshell, is why the Council was not first approached. Further, in late April 2013 one of our Board Directors requested a briefing as to the offsets issue and the Workgroup. In May 2013 we presented the matter to the District Board and requested guidance to perform a detailed analysis of those Workgroups ideas that the Control Officer found worthy of detailed analyses. That is what District staff have been working on since last May. The briefing to this Council today (10/9/13) was requested by our Planning Section as a general update as it related

to the draft Clean Air Plan and its associated growth allowance. The Engineering Division was asked to provide this briefing and, due to the potential for rulemaking changes, we thought it proper to provide tis Council a "detailed" briefing, rather than short status update. We intend to return to this Council for further discussions as long as there is a potential for rulemaking as a solution to the offsets question.

15. *What is the Moyer Program?*

    It is a grant program that offers financial incentives to voluntarily replace, retrofit or repower older vehicles and off-road engines. Examples include retrofitting school buses, replacing tractors and re-powering marine vessels. These projects are typically outside the normal scope of our permitting program. Funding is through DMV and other State revenue streams. For more, click here.

16. *What are some of the policy revisions suggested by the Offsets Workgroup?*

    Examples include changing the actual emission baseline, transferring older "used" ERCs, automating the ERC renewal process and forgoing offsets for equipment replacements. For the District's summary, click here. The District may investigate a variation to Option 1.4 regarding entire/partial unit replacements. In order to avoid the offsets requirements, such a new policy might apply for replacement units if the unit was of the same or lesser rating as the original unit, the replacement unit applied current BACT standards and ATC & PTO permits were obtained. The impact of developing this policy will be minimal in regards to ERC supply and cost, but it could encourage sources to replace older units with newer cleaner units without the deterrent of offsets.

17. *So a piece of equipment has reached the end of its useful life, is still in compliance and needs to be replaced by a new unit. Would the replacement unit still need to be offset?*

    Yes, since new equipment (assuming the offset thresholds of Rule 802 are exceeded) would need to offset its emissions. In this scenario, what we expect is that the new equipment would be much cleaner due to advances in control technologies, thus lowering the unit's emissions profile and amount of ERCs needed. At the same time, the existing unit would qualify for creating new ERCs and those can be used to offset the new equipment. The rules would still require a 1.2:1 offset ratio and the ERCs created would be based on actual in-the-air baseline emissions. As an example, control technologies approved on projects in the 1980's for NO_x have improved dramatically (e.g., a gas turbine in 1987 had to meet best available control standards for NO_x at 9 ppmv, whereas that same equipment today would need to meet a control standard of 2 ppmv). In summary, in some cases the project would create sufficient ERCs to offset the emissions from the new unit and in other cases not. The District may want to include this scenario in any new policy addressing the replacement issue for units that did not reach the end of their useful life (see above).

18. *If you take the VOCs out of the natural gas before its burned, would that be an effective reduction that you can create ERCs from?*

    Yes, such a proposal would likely qualify for ERC generation. The economics of implementing this idea might be cost prohibitive due to the energy requirements required to knock out the lighter end hydrocarbons.

19. *How much do ERCs cost in other Districts?*

ERC costs vary from District-to-District. Examples for NO_x include:

San Joaquin Valley APCD	$50,000	per ton
Yolo-Solano AQMD	$40,000	per ton
San Diego APCD	$109,000	per ton
Mojave Desert AQQMD	$10,000	per ton
Ventura County APCD	$42,000	per ton
SacMetro AQMD	$50,000	per ton
Placer County APCD	$15,000	per ton
South Coast AQMD	waiting on reply	
Bay Area AQMD	waiting on reply	
San Luis Obispo APCD	No recent trades	
Monterey Bay AQMD	No recent trades	

Click here for the complete table summarizing Large and Medium sized agencies.

20. *What's the scale? In other words, how many cars would equate to reducing one ton of NO_x emissions?*

Approximately 117 cars per ton of NO_x. Click here for a more detailed reply.

21. *Cruise ships are now visiting Santa Barbara more frequently now. While moored they run their electrical generators. If an electrical umbilical cord could connect grid (shore) power to the ships, would this be a way to create ERCs?*

Such an operation is termed "cold ironing". It is used when ships are berthed at a port. The cruise ships that visit Santa Barbra moor outside the harbor, so there would be technical, logistical and economic issues with running shore power out that far. But in general, yes, it has potential to create ERCs. Besides the technical, logistical and economic issues, there would be some regulatory challenges in establishing baseline data and ensuring the reductions are quantifiable, surplus permanent and enforceable.

22. *Can you send us the District's presentations in advance?*

Yes, we will when it's feasible to do so.

23. *What is the difference between the No Net Increase Program and the proposed CAP growth allowance?*

These are two distinct items. The No Net Increase Program is a State mandated requirement for areas such as ours to have a no net emissions program for sources with a potential-to-emit of 25 tons per year. See H&SC 40918(a)(1) here. In 1997 we revised our New Source Review (NSR) rules to include this State mandate. During the rulemaking process, comments from the CAC and the public resulted in the adoption of alternative language from the H&SC and we adopted an "equivalent" set of rules that were approved by the ARB. Any changes we contemplate for our NSR rules must continue to show that our rules are equivalent to this State mandate.

The proposed CAP growth allowance is unrelated to this State mandate. The growth allowance concept is a planning tool that has been used by the District in prior Plans (e.g., Air Force Airborne Laser project). In this context, the growth allowance notes that we have sufficient emissions inventory flexibility to accommodate additional growth while at the same time not interfering with reasonable progress in attaining the State ozone standard. Any proposed CAP growth must also be approved by the ARB when they review the Board-approved Plan that is forwarded to them.

24. *How many Districts have Mitigation Fee programs?*

    There are no Districts with a Clean Technology Fund type program. Only one District, the South Coast AQMD, has a rule that allows for mitigation fees in lieu of ERCs. Their Rule 1304.1 (*Electrical Generating Facility Fee for Use of Offset Exemptions*) sets a fee for new electrical generating plants that replace older boiler electrical generating plants. Prior to this rule, the SCAQMD provided these specific replacement projects with "free" ERCs from their internal bank. Our District has implemented mitigation fee programs in the past via CEQA mitigation requirements on projects such as Exxon's Santa Ynez Unit.

25. *Can the District take credit for shipping emission reductions, bank them and then make them available to projects that trigger our NSR rule offset thresholds? In other words, can the District pro-actively give credit to itself?*

    Theoretically it's plausible. This, in essence would be implemented as a growth allowance in the CAP. It would be a "non-balanced" growth allowance approach (the proposed Clean Technology Fund concept was a "balanced" approach in that the program was envisioned as being self-funding after a number of years). Major obstacles would be (a) ensuring that these reductions can be counted on permanently, (b) getting oversight agency approvals and (c) getting buy-in from the local community and the Board of Directors.

26. *How much do ERCs cost in Ventura and San Luis Obispo Counties?*

    In Ventura County APCD, NO_x and VOC ERC costs range from $42,000 - $47,000 per ton, with an upward trend in recent years. San Luis Obispo County has not had any ERC sales for the past 15 years.

27. *Is it feasible to install solar thermal energy systems in Cat Canyon in lieu of using large steam generators?*

    We are not sure about the feasibility of this concept. If technically and economically feasible, then this would eliminate the need for the traditional fossil-fuel fired units and thus obviate the need to procure ERCs.

28. *Can the District create a parallel (banking) program for GHG ERCs?*

    Yes. We can actually initiate this process independently and/or concurrently with the criteria pollutant offset issues being discussed.

29. *Is the primary problem that of hoarding ERCs? Can we address this for long term holders of ERCs?*

    We believe it is a basic market supply and demand issue. Those companies that foresaw the need for future projects either bought ERCs on the open market or initiated their own ERC projects. Currently, the amount of ERCs available is low and the prospects of creating new ERCs is more

difficult than in the past. Implementing a process of debiting long-term holders of ERCs may be feasible via rulemaking, but it does not appear that it would make a sizeable impact on the issues of cost and availability.

30. *Have we outgrown the growth model that we are still operating under and at the same time trying to have clean air?*

    The District's Mission is to protect the people and the environment of Santa Barbara County from the effects of air pollution. Land Use, Development and Planning activities (which include planning growth models) are the purview of the County and the eight incorporated Cities.

31. *We should encourage electric vehicle credit programs (e.g., replace local FedEx diesel delivery trucks with electric vehicles)?*

    Yes, we concur as this would be consistent with the District's Mission Statement.

32. *How do you handle mobile source ERCs that are not permanent?*

    Mobile source ERC project present many difficulties in getting through the ERC approval process. That is why very few projects have been implemented statewide. These tend to be better suited for short-term projects (e.g., 5 years). Some Districts have specific Mobil Source ERC rules that can be referenced.