# CALIFORNIA ENERGY COMMISSION REPORT OF CONVERSATION Page 1 of 1



| Siting, Transmission, and Environmental Division |   |         | FILE: 11-AFC-04              |                        |              |       |  |
|--|---|---------|------------------------------|------------------------|--------------|-------|--|
|  |   | PF      | PROJECT TITLE: Rio Mesa SEGF |                        |              |       |  |
| ⊠ E-mail   |   |         |                              | ☐ Meeting Location: NA |              |       |  |
| NAME:  | Andı  | ea Koch | DATE:                        | 8/                     | 2/12-8/13/12 | TIME: |  |
| WITH:  | Todd Stewart, Brightsource                        |         |                              |                        |              |       |  |
| SUBJECT:   | Traffic Questions (See also the attached e-mails) |         |                              |                        |              |       |  |

### PHONE CONVERSATION:

I had various questions about the traffic information presented in the Applicant's Supplemental Data Response Number Four, Set 1A (#16 and #26): Applicant's Environmental Enhancement Proposal (11-AFC-04). In this ROC, I will refer to this document simply as the Project Supplement.

The most major question I had concerned the traffic data provided in Table 5.12-8 of the Project Supplement. This data was not fully consistent with proposed construction traffic routes and did not reflect the fact that a significant percentage of workers would access the site via Lovekin Boulevard. In response to my questions, the applicant submitted revised traffic data. See the attached e-mails for this data.

I had other miscellaneous questions, many regarding clarification of inconsistencies in and between the Project Supplement and AFC. In response, the applicant clarified the truck route, details of the FAA Determination of No Hazard, and the largest shift of employees at various areas of the site. See the attached e-mails for this information.

California Energy Commission

TN # 67032 SEP 06 2012

DOCKETED 11-AFC-04

| cc: | Signed:           |
|-----|-------------------|
|     | Name: Andrea Koch |

# Email: pierre.martinez@energy.ca.gov

From: Koch, Andrea@Energy

Sent: Thursday, August 02, 2012 1:48 PM

**To:** Martinez, Pierre@Energy **Cc:** Flores, David@Energy

**Subject:** Rio Mesa Traffic Numbers

Hi Pierre.

I've finally had a chance to get back to Rio Mesa traffic, and I've started reviewing the traffic numbers. Unfortunately, some of them do not make sense given the routes that traffic would be taking. I'm going to try to resolve this via an e-mail to the applicant (and all communications would be docketed), unless you would prefer me to submit a data request.

Let me know the suggested course of action, or if you have any questions. I don't think it's a big deal, but I definitely need revised numbers.

Thanks!

**Andrea** 

Andrea Koch-Eckhardt Environmental Planner II, Traffic and Land Use CA Energy Commission (916) 654-3850 From: Todd Stewart [tstewart@brightsourceenergy.

com]

Sent: Monday, August 06, 2012 3:39 PM

To: Koch, Andrea@Energy

Cc: Martinez, Pierre@Energy; Flores, David@Energy

Subject: RE: A few more Rio Mesa Traffic Questions

# Andrea,

Below are a couple of your questions answered. I will get the rest of them answered ASAP.

# Todd

From: Koch, Andrea@Energy [mailto:Andrea.Koch@energy.ca.gov]

Sent: Monday, August 06, 2012 3:02 PM

To: Todd Stewart

**Cc:** Martinez, Pierre@Energy; Flores, David@Energy **Subject:** A few more Rio Mesa Traffic Questions

Hi Todd.

I have a few more questions for you regarding the latest Rio Mesa submittal. I think that some of the questions are the same as those I had about the original submittal. Could you provide me with the answers as soon as you can? Thanks! I've listed the questions at the end of this e-mail.

Also, I'll be out of the office for a few days starting on August 31st. I'm hoping that Bechtel can provide the revised traffic numbers by tomorrow or Wednesday at the latest so that I'll have sufficient time before I leave to complete the draft report, have it reviewed by my supervisors, and then make the necessary corrections. Let me know if this isn't possible, and I'll try to work something out with Pierre. Have you heard anything about Bechtel's timeline?

Thanks!

**Andrea** 

# **Questions:**

1) The Project Refinement shows no changes to Section 5.12.3.2 (Existing Traffic Conditions). This section of the original AFC, on page 5.12-17 under "Goods Movement", states that truck traffic would use 34<sup>th</sup> Avenue or Bradshaw Trail to access the site.

In the Project Refinement, pages 5.12-4, 5.12-5 and 5.12-6 include statements that truck traffic

would only use Bradshaw Trail.

Please clarify whether truck traffic would only use Bradshaw Trail, or whether it would use both Bradshaw Trail and 34<sup>th</sup> Avenue. I'm assuming that the trucks would probably just use Bradshaw Trail.

Answer: Project related truck traffic would use only Bradshaw Trail. The exception would be that TransCanada would most like use the secondary access (34<sup>th</sup> Avenue) to access their facilities once it is built since it would be a more direct access route to the tap and meter station location.

2) How did you come up with the conclusion that a large percentage of construction workers would carpool? What were your assumptions? How would they meet to carpool?

Answer: I will defer to URS/Bechtel for this answer.

3) It appears that the numbers in Table 5.12-6 of the Project Refinement are actually one-way trips, not roundtrips. Please confirm.

Answer: I will defer to URS/Bechtel for this answer.

4) I noticed that the submittals to the FAA were for structures of 820 feet AGL. Why is this taller than the ultimate tower height of 760 feet? Is it to accommodate taller construction cranes?

Answer: This was done for conservativeness early on in our permitting phase. The towers are still 750 feet with a 10 foot lightning rod.

5) I wanted to confirm the number of parking spaces for operations in the common area and at each power plant. From Figure 2-3 in the Project Refinement, it looks like there are 24 regular parking spaces and 2 accessible parking spaces at each power block. Is this correct? Also, from Figure 2-8, it looks like there are 79 spaces and possibly 2 accessible spaces. Is this correct?

Answer: I will defer to URS/Bechtel for this answer.

6) What is the largest shift of employees at a) the common area and b) each power plant.

Answer: I will get the answer directly.

Andrea Koch-Eckhardt Environmental Planner II, Traffic and Land Use CA Energy Commission (916) 654-3850

From: Todd Stewart [tstewart@brightsourceenergy.

com]

Sent: Monday, August 06, 2012 3:41 PM

To: Koch, Andrea@Energy Subject: RE: One more question

# That is correct.

From: Koch, Andrea@Energy [mailto:Andrea.Koch@energy.ca.gov]

Sent: Monday, August 06, 2012 3:40 PM

To: Todd Stewart

**Cc:** Martinez, Pierre@Energy **Subject:** One more question

Hi Todd.

I just wanted to confirm that trucks carrying hazardous materials would use the Bradshaw Trail access and not the 34<sup>th</sup> Avenue access. Thanks!

# **Andrea**

Andrea Koch-Eckhardt Environmental Planner II, Traffic and Land Use CA Energy Commission (916) 654-3850 **From:** Todd Stewart [tstewart@brightsourceenergy.

com]

Sent: Wednesday, August 08, 2012 4:58 PM

To: Koch, Andrea@Energy

Cc: Leiba, Angela; Andrea@agrenier.com; Kevin

Bertrand; Martinez, Pierre@Energy

**Subject:** Traffic Questions - Responses

Attachments: RMS Daily Construction Model Summary.pdf; RMS Traffic Response to CEC (Andrea Koch) (2).docx; Tables for Traffic

Discussion\_8 3 12\_URS\_Review.docx

# Andrea,

Attached are our responses to your questions on the traffic issues. URS found that they had some errors which you uncovered (thank you) and have instituted processes to prevent recurrence in the future.

# There are three Attachments here

- 1. <u>Tables for Traffic Discussion 8 3 12 URS Review .docx</u> is your "commented" table to which our responses are based upon. Our response letter uses the designation in the comment balloons to assure proper cross reference between the two documents.
- 2. RMS Traffic Respons to CEC (Andrea Koch) (2).docx is our response letter
- 3. RMS Daily Construction Model Summary.pdf is the supporting model run for the responses.

I hope this addresses your questions. Please call if you have any issues what so ever.

Best Regards,

#### Todd Stewart P.E.

Senior Director - Project Development **Project Manager - Rio Mesa Solar**BrightSource Energy Inc.

**O 510-550-8908 C 925-200-0629** F 510-899-6768 <a href="mailto:tstewart@BrightSourceEnergy.com">tstewart@BrightSourceEnergy.com</a>

www.BrightSourceEnergy.com

#### **Traffic and Transportation Table 1**

#### **Daily Construction Worker Trip Generation during Peak Construction**

| Daily Trips                            | One-Way AM Peak<br>Hour Trips | One-Way PM Peak<br>Hour Trips               |
|--|-------------------------------|---|
| 1,370 roundtrips = 2,740 one-way trips | 754 inbound <sup>2</sup>      | 754 outbound <sup>2</sup>                   |
|  | 1,370 roundtrips =            | 1,370 roundtrips = 754 inbound <sup>2</sup> |

<sup>&</sup>lt;sup>1</sup> The peak workforce would be approximately 2,200 workers. Assuming that some of them carpool, the construction workers would use approximately 1,370 vehicles daily to commute.

The applicant anticipates that the majority of the Rio Mesa SEGF construction workforce would commute from locations near the project site, regionally or locally. The following is a breakdown of the approximate percentage of worker traffic traveling on each route to the Rio Mesa SEGF site:

- 60% from the west via I-10
- 30% from the east via I-10
- 5% from Blythe and Ripley
- 5% from the south via SR-78

For local access to the project site, approximately 50% of workers would travel on SR-78 and turn westbound onto 30<sup>th</sup> Avenue/Bradshaw Trail into the site. The remaining approximately 50% of workers would travel south on Lovekin Blvd., turn west onto 28<sup>th</sup> Ave., which continues as SR-78, and then continue to follow SR-78, finally turning westbound onto 34<sup>th</sup> Ave. into the site. See **Traffic and Transportation Figure X** for a map of project access routes.

#### **Traffic and Transportation Table 2**

#### Daily Truck Trip Generation during Peak Construction (in PCE units1)

| Trucks (Delivery/Haul                           | Daily Trips                         | One-Way AM Peak Hour               | One-Way PM Peak         |
|---|-------------------------------------|------------------------------------|-------------------------|
| Vehicles)                                       |                                     | Trips                              | Hour Trips              |
| 8 trucks = 24 passenger car<br>equivalent (PCE) | 24 roundtrips =<br>48 one-way trips | 12 inbound 6 outbound <sup>2</sup> | 6 outbound <sup>3</sup> |

<sup>&</sup>lt;sup>2</sup> This analysis assumes that 55% of worker vehicles would arrive during the morning peak hours (7-9 AM) and leave during the evening peak hours (4-6 PM).

<sup>&</sup>lt;sup>1</sup> PCE, or passenger car equivalent, is a conversion unit for comparing the traffic impacts of a large truck with the traffic impacts of a smaller car. This analysis uses a PCE of 3 cars for every truck. This table reports daily trips, one-way AM peak hour trips, and one-way PM peak hour trips in PCE units.

Overall, 50% of one-way truck trips would occur during the peak morning or evening hours:

12 inbound (AM peak) + 6 outbound (AM peak) + 6 outbound (PM peak) = 24 peak hour one-way trips

24 peak hour one-way trips/48 daily one-way trips = 0.50, or 50%

Construction truck traffic would access the site from I-10, turning south on SR-78 and traveling west on 30<sup>th</sup> Ave./Bradshaw Trail to access the project site. Truck deliveries would usually occur on weekdays between 7 AM and 5 PM, with approximately 50% occurring during the morning or evening peak hours.

#### **Total Construction Traffic**

The total workforce and truck trips generated during peak construction month would be 2,788 daily one-way trips (2,740 worker trips added to 48 PCE truck trips). Approximately 1,532 of these one-way trips would occur during peak hours: 772 during the morning peak and 760 during the evening peak. See **Traffic and Transportation Table 3** which is shown below. This table summarizes all peak construction traffic generated by the Rio Mesa SEGF, including construction worker trips and delivery/haul truck trips.

#### **Traffic and Transportation Table 3**

#### **Total Daily Trips during Peak Construction**

| Vehicle Type                          | Daily Roundtrips | One-Way Daily<br>Trips | One-Way AM<br>Peak Hour<br>Trips | One-Way PM Peak<br>Hour Trips |
|---------------------------------------|------------------|------------------------|----------------------------------|-------------------------------|
| Construction Worker Vehicles          | 1,370            | 2,740                  | 754                              | 754                           |
| Trucks (Delivery/Haul Vehicles) (PCE) | 24               | 48                     | 18                               | 6                             |

<sup>&</sup>lt;sup>2</sup>This analysis assumes that 50% of the 24 PCE trucks arrive and 25% depart during the morning peak hours (7-9 AM).

<sup>&</sup>lt;sup>3</sup> This analysis assumes that 25% of the 24 PCE trucks depart during the evening peak hours (4-6 PM).

| Total | 1,394 | 2,788 | 772 | 760 |
|-------|-------|-------|-----|-----|

#### **Traffic and Transportation Table 4**

# Average Daily Traffic (ADT) during the Year 2015: A Comparison between Baseline and Peak Construction Conditions

| Freeway/Road Segment            | 2015 – No<br>Project ADT | Project-<br>Added<br>Trips    | Year 2015 –<br>Peak<br>Construction<br>ADT | Year 2015 –<br>Peak<br>Construction<br>LOS | LOS |
|---------------------------------|--------------------------|-------------------------------|--|--|-----|
| I-10, West of SR-78             | 24,300                   | 1,657                         | 25,957                                     | C  | •   |
| I-10, East of SR-78             | 25,704                   | <del>514</del> <u>1,336</u> _ | <del>26,218</del> 27,040                   | <u>©</u>                                   |     |
| Neighbours Blvd., North of I-10 | 1,642                    | 0                             | 1,642                                      | <u>£</u>                                   |     |
| SR-78, South of I-10            | 1,728                    | <del>1,890</del> <u>1,350</u> | <del>3,618</del> 3,078                     | <u>G</u>                                   |     |

<sup>&</sup>lt;sup>1</sup> In several instances, there is more than one LOS standard which applies. In this column, staff has provided the most restrictive LOS standard.

#### Formatted Table

Comment [AK1]: 30% come from the east via I-10. That means they will be on I-10 east of SR-78 for both their arrival and departure trips, and I can use one-way trips to calculate. (0.30)(2,740) = 836.54 construction workers. This is much higher than the project enhancement's indicated number of 514. The project enhancement is missing construction trips and possibly truck trips, too.

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Comment [AK2]: 50% of construction workers would travel on SR-78 and turn into the site from there. (Most of these would be from I-10, but some would be coming up from the south via SR-78 or would be coming down from Ripley, where they would not be traveling on SR-78 just south of I-10.) Those from Blythe might use Lovekin Blvd. and avoid SR-78 just south of I-10.

Even though some workers from Blythe would probably use I-10 and would therefore be on SR-78 just south of I-10, for simplicity's sake, I just assumed that half of the 90% of workers coming from I-10 (west or east) would use the SR-78 exit (not the Lovekin one).

60% of workers from the west via I-10 + 30% of workers from the east via I-10 = 90% of workers. (0.90)(2,740) = 2,466 one-way trips (0.50)(2,466) = 1,233 one-way trips over here.

Trucks: All trucks will access site from I-10 and SR-78. 1,233 + 48 daily one-way truck trips = 1,281.

Number in table is much higher and doesn't seem to reflect that 50% of workers would travel south on Lovekin Blvd. (And if you look down lower in the table, they have 0 for the number of workers going down Lovekin.)

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| SR-78, North of 22 <sup>nd</sup> Ave.        | 2,268 | <mark>810</mark> 1 <u>,350</u> | <del>3,078</del> 3,618         | <u>2</u> | <br>Comment [AK3]: This should be about 50% of worker trips since 50% travel from SR-78 to the project site. (Would actually be a little lower than 50% since some of this 50% would be from Ripley or south on SR-78 and would not go far enough north to pass this point.) |
|--|-------|--------------------------------|--------------------------------|----------|--|
| SR-78, North of 30 <sup>th</sup> Ave.        | 1,404 | <del>1,350</del> 2, <u>652</u> | <del>2,7544,056</del>          | <u>©</u> | <br>Formatted: Font: 10 pt, Not Bold, Not Superscript/ Subscript  Comment [AK4]: Almost all of the workers would pass by this point, with the exception of those coming up from the south via SR-78. At  |
| SR-78, South of 34 <sup>th</sup> Ave.        | 1,188 | 137                            | 1,325                          | <u>C</u> | this point, you would collect all the workers coming from Lovekin Blvd. and joining back up, and you would also collect all the traffic taking the SR-78 exit. This number should be nearly the number of all the one-way trips for trucks and construction workers.         |
| Lovekin Blvd., North of I-10                 | 9,418 | <del>0</del> <u>107</u>        | <del>9,418</del> 9.525         | <u>C</u> |  |
| Lovekin Blvd., South of I-10                 | 7,301 | <del>0</del> 1,302             | <mark>7,301</mark> 8,603       | <u>C</u> | <br>Comment [AK5]: From revised submittal. This does not make sense. According to information in the submittal, 50% of workers would travel south on Lovekin Blvd.   |
| 28 <sup>th</sup> Ave., West of Lovekin Blvd. | 778   | <del>0</del> 1,302             | <mark>778</mark> 2,0 <u>80</u> | <u>C</u> | <br>Comment [AK6]: From revised submittal. This does not make sense. According to information in the submittal, 50% of workers would travel south on Lovekin Blvd., turning west onto 28 <sup>th</sup> Ave.  |

#### RESPONSE TO CEC TRAFFIC COMMENTS 08-07-2012

# Response to Comments (Please refer to Andrea's Table with Comments noted with comment balloons "AK")

**Comment AK1** - 30% come from the east via I-10. That means they will be on I-10 east of SR-78 for both their arrival and departure trips, and I can use one-way trips to calculate. (0.30)(2,740) = 836.54 construction workers.

This is much higher than the project enhancement's indicated number of 514. The project enhancement is missing construction trips and possibly truck trips, too.

**Response:** - This figure represents the arrival and departure each day on that portion of the freeway for workers assigned to the site. i.e. 668 to the site and 668 from the site.

**Comment AK2** - 50% of construction workers would travel on SR-78 and turn into the site from there. (Most of these would be from I-10, but some would be coming up from the south via SR-78 or would be coming down from Ripley, where they would not be traveling on SR-78 just south of I-10.) Those from Blythe might use Lovekin Blvd. and avoid SR-78 just south of I-10.

Even though some workers from Blythe would probably use I-10 and would therefore be on SR-78 just south of I-10, for simplicity's sake, I just assumed that half of the 90% of workers coming from I-10 (west or east) would use the SR-78 exit (not the Lovekin one).

60% of workers from the west via I-10 + 30% of workers from the east via I-10 = 90% of workers. (0.90)(2,740) = 2,466 one-way trips (0.50)(2,466) = 1,233 one-way trips over here.

Trucks: All trucks will access site from I-10 and SR-78. 1,233 + 48 daily one-way truck trips = 1,281.

Number in table is much higher and doesn't seem to reflect that 50% of workers would travel south on Lovekin Blvd. (And if you look down lower in the table, they have 0 for the number of workers going down Lovekin.)

**Response:** – Andrea, we agree with your comment. The updated figure shows the arrival and departure each day on this portion of SR-78 south of the freeway.

**AK3** - This should be about 50% of worker trips since 50% travel from SR-78 to the project site. (Would actually be a little lower than 50% since some of this 50% would be from Ripley or south on SR-78 and would not go far enough north to pass this point.)

**Response** - Andrea we agree with your comment, The model assumes that we will have about 5% of the workers living locally in Blythe and to a lesser extent in Ripley. Figures have been updated to reflect this statement.

**Comment AK4** - Almost all of the workers would pass by this point, with the exception of those coming up from the south via SR-78. At this point, you would collect all the workers coming from Lovekin Blvd. and joining back up, and you would also collect all the traffic taking the SR-78 exit. This number should be nearly the number of all the one-way trips for trucks and construction workers.

Response: - Andrea we agree with your statement. Table has been updated to reflect this statement.

**Comment AK5** - From revised submittal. This does not make sense. According to information in the submittal, 50% of workers would travel south on Lovekin Blvd.

**Response:** - Andrea we agree with you. This was an error in the way we programmed the spreadsheet. We have since ran the model to show and verify the trip assignment. Table has been updated to reflect this statement.

**Comment AK6** - From revised submittal. This does not make sense. According to information in the submittal, 50% of workers would travel south on Lovekin Blvd., turning west onto 28<sup>th</sup> Ave.

**Response:** - Andrea we agree with you. This was an error in the way we programmed the spreadsheet. We have since ran the model to show and verify the trip assignment. Table has been updated to reflect this statement

#### Additional Responses

Traffic on Lovekin Blvd., North of I-10 (There was no comment on this item but URS updated the table)

**Response:** - Andrea we assigned a number of trips to this route to account for local workers.

#### **Supporting Discussion and Documentation**

In response to CEC comments, Applicant has determined that there were some errors on the EXCEL formulas/references used to derive the daily project construction added trips. It must be noted that the discrepancies did not influence the general outcome of the traffic study. All roadway segments maintain their forecast Level of Service (LOS) C operating conditions.

Applicant has conducted a special DAILY Traffic Model Run to provide a comprehensive tracking of the project trip assignment consistent with the Traffic Model Assumptions used in the AM and PM peak hour analysis. To prevent the recurrence of the EXCEL errors, Applicant will run DAILY Traffic Model forecast as a standard operating practice to generate daily project added trip information.

### Traffic Model Trip Distribution Assumptions

The following matrix describes the distribution input in the traffic model. The zone and gate system represent the interchange of trips in the traffic model.

| Zone                 | Gate 1 – I-10 West<br>Coachella Valley | Gate 3 – I-10 East<br>of Lovekin | Gate 4 – SR-78<br>South to Imperial<br>County | Gate 6 – Lovekin<br>north of I-10<br>representing local<br>trips from Blythe |
|----------------------|--|----------------------------------|---|--|
| 1 – Operations       | 40%                                    | 60%                              |   |  |
| 2 – Const. workers   | 60%                                    | 30%                              | 5%  | 5%   |
| 3 – Const. materials | 35%                                    | 65%                              |   |  |
| 4 – Const. equipment | 20%                                    | 80%                              |   |  |

# Traffic Model Daily Construction Trip Assignment

The results of the traffic model forecast to support the Daily Project Construction Table is attached. This provides a summary of the Project Daily Construction Trip Generation, Distribution and Resultant Link volumes.

#### **Attachments:**

- 1. Updated Traffic Table with redlines incorporating updated numbers. (Word document)
- 2. Traffic Model Forecast Summary for Daily Project Construction Scenario (PDF)

Rio Mesa Solar Electric Generating Facility (SEGF) Daily Trip Generatioh

Trip Generation Report

# Forecast for Daily Construction

| Zone<br># | Subzone | Amount | Units          | Rate<br>Out | Trips<br>In | -        | Total<br>Trips |              |
|-----------|---------|--------|----------------|-------------|-------------|----------|----------------|--------------|
|           |         |        |                | <br>        |             |          |                |              |
| 2         |         |        | Construction   |             |             |          |                | 0 98<br>98.3 |
| 3         |         |        | Materials Truc |             | 12<br>12    | 12<br>12 | 24<br>24       | 0.9          |
| 4         |         |        | Equipment Truc |             | 12<br>12    | 12<br>12 | 24<br>24       | 0.9          |
| TOTAL     |         |        |                | <br>        | 1394        | 1394     | 2788           | 100.0        |

Rio Mesa Solar Electric Generating Facility (SEGF) Daily Trip Generatioh

Trip Distribution Report

# Percent Of Trips Trip Distribution

|      | To Gates |      |     |     |  |  |  |
|------|----------|------|-----|-----|--|--|--|
|      | 1        | 3    | 4   | 6   |  |  |  |
| Zone |          |      |     |     |  |  |  |
| 1    | 40.0     | 60.0 | 0.0 | 0.0 |  |  |  |
| 2    | 60.0     | 30.0 | 5.0 | 5.0 |  |  |  |
| 3    | 35.0     | 65.0 | 0.0 | 0.0 |  |  |  |
| 4    | 20.0     | 80.0 | 0.0 | 0.0 |  |  |  |

Daily Mon Aug 6, 2012 17:47:09 Page 4-1 Rio Mesa Solar Electric Generating Facility (SEGF) Daily Trip Generatioh

Link Volume Report Daily Construction

| Volume<br>Type                          | In           | NB L:   | ink<br>Total | In        | SB L       | ink<br>Total | In   | EB L         | ink<br>Total | In         | WB L:      |              | Total<br>Volume |
|---|--------------|---------|--------------|-----------|------------|--------------|------|--------------|--------------|------------|------------|--------------|-----------------|
|   |              |         |              |           |            |              |      |              |              |            |            |              |                 |
| #1 SR-78 (Neighbours Boulevard)/I-10 WB |              |         |              |           |            |              | _    |              |              |            |            |              |                 |
| Base                                    | 42           | 47      | 89           | 55        | 37         | 92           | 0    | 42           | 42           | 29         | 0          | 29           | 252             |
| Added                                   | 418          | 257     | 675          | 0         | 0<br>37    | 0            | 0    | 418          | 418          | 257        | 0          | 257          | 1350            |
| Total                                   | 460          | 304     | 764          | 55        | 37         | 92           | U    | 460          | 460          | 286        | U          | 286          | 1602            |
| #2 SR-78 (Neighbours Boulevard)/I-10 EB |              |         |              |           | Ramps      |              |      |              |              |            |            |              |                 |
| Base                                    | 61           | 63      | 124          | 71        | 31         | 102          | 21   | 0            | 21           | 0          | 59         | 59           | 306             |
| Added                                   | 675          | 675     | 1350         | 257       | 418        | 675          | 418  | 0            | 418          | 0          | 257        | 257          | 2700            |
| Total                                   | 736          | 738     | 1474         | 328       | 449        | 777          | 439  | 0            | 439          | 0          | 316        | 316          | 3006            |
| #3 SR-7                                 | 78/22:       | nd Ave  | ے            |           |            |              |      |              |              |            |            |              |                 |
| Base                                    | 69           | 50      | 119          | 48        | 65         | 113          | 4    | 3            | 7            | 4          | 7          | 11           | 250             |
| Added                                   | 675          | 675     | 1350         | 675       | 675        | 1350         | 0    | 0            | 0            | 0          | 0          | 0            | 2700            |
| Total                                   | 744          | 725     | 1469         | 723       | 740        | 1463         | 4    | 3            | 7            | 4          | 7          | 11           | 2950            |
|   |              |         |              |           |            |              |      |              |              |            |            |              |                 |
| #4 Neig                                 | •            |         |              |           |            | 6.0          | 1.0  | 0.7          | 4.0          | 0.0        | 0          | 0.0          | 1.00            |
| Base                                    | 25           | 14      | 39           | 29<br>675 | 40         | 69           | 16   | 27           | 43           | 20         | 9<br>CE1   | 29           | 180             |
| Added<br>Total                          | 0<br>25      | 0<br>14 | 0<br>39      | 704       | 675<br>715 | 1350<br>1419 |      | 1326<br>1353 | 2652<br>2695 | 651<br>671 | 651<br>660 | 1302<br>1331 | 5304<br>5484    |
| IULAI                                   | 23           | 14      | 39           | 704       | 113        | 1419         | 1342 | 1333         | 2093         | 0/1        | 000        | 1331         | 3404            |
| #5 Rame                                 | ells         | (SR-78  | 3)/28th      | Ave       |            |              |      |              |              |            |            |              |                 |
| Base                                    | 23           | 32      | 55           | 12        | 16         | 2.8          | 0    | 1            | 1            | 23         | 9          | 32           | 116             |
| Added                                   |              | 1326    | 2652         | 0         | 0          | 0            | 0    | 0            | 0            |            | 1326       | 2652         | 5304            |
| Total                                   | 1349         | 1358    | 2707         | 12        | 16         | 28           | 0    | 1            | 1            | 1349       | 1335       | 2684         | 5420            |
| #6 SR-7                                 | 78/30·       | th Awa  | niie         |           |            |              |      |              |              |            |            |              |                 |
| Base                                    | 38           | 37      | 75           | 37        | 38         | 75           | 0    | 0            | 0            | 0          | 0          | 0            | 150             |
| Added                                   | 651          | 651     | 1302         | 1326      | 1326       | 2652         | 675  | 675          | 1350         | 0          | 0          | 0            | 5304            |
| Total                                   | 689          | 688     | 1377         | 1363      | 1364       | 2727         | 675  | 675          | 1350         | 0          | 0          | 0            | 5454            |
| "                                       | 70/04        |         |              |           |            |              |      |              |              |            |            |              |                 |
| #7 SR-7<br>Base                         | 78/34°<br>42 | tn Ave  | enue<br>72   | 32        | 42         | 74           | 0    | 2            | 2            | 0          | 0          | 0            | 148             |
| Added                                   | 69           | 69      | 138          | 651       | 651        | 1302         | 720  | 720          | 1440         | 0          | 0          | 0            | 2880            |
| Total                                   | 111          | 99      | 210          | 683       | 693        | 1376         | 720  | 722          | 1442         | 0          | 0          | 0            | 3028            |
|   |              |         |              |           |            |              |      |              |              |            |            |              |                 |
| #8 Lovekin/I-10 WB ramps                |              |         |              |           |            |              |      |              |              |            |            |              |                 |
| Base                                    | 220          | 252     | 472          | 299       | 273        | 572          | 0    | 138          | 138          | 144        | 0          | 144          | 1326            |
| Added                                   | 480          | 240     | 720          | 68        | 69         | 137          | 0    | 445          | 445          | 206        | 0          | 206          | 1508            |
| Total                                   | 700          | 492     | 1192         | 367       | 342        | 709          | 0    | 583          | 583          | 350        | 0          | 350          | 2834            |
| #9 Love                                 | ekin/        | I-10 F  | EB ramo      | s         |            |              |      |              |              |            |            |              |                 |
| Base                                    | 198          | 186     | 384          | 256       | 222        | 478          | 97   | 0            | 97           | 0          | 143        | 143          | 1102            |
| Added                                   | 651          | 651     | 1302         | 240       | 479        | 719          | 445  | 0            | 445          | 0          | 206        | 206          | 2672            |
| Total                                   | 849          | 837     | 1686         | 496       | 701        | 1197         | 542  | 0            | 542          | 0          | 349        | 349          | 3774            |

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Rio Mesa Solar Electric Generating Facility (SEGF) Daily Trip Generation

|                |            |            |              |            | Daily      | Trip         | Genera     | atioh     |          |          |          |              |              |
|----------------|------------|------------|--------------|------------|------------|--------------|------------|-----------|----------|----------|----------|--------------|--------------|
| Volume         |            | NB Li      | <br>.nk      |            | SB Li      | nk           |            | <br>EB Li | .nk      |          | WB Li    | <br>Lnk      | Total        |
| Type           | In         |            | Total        | In         |            | Total        | In         | Out       | Total    | In       | Out      |              | Volume       |
|                |            |            |              |            |            |              |            |           |          |          |          |              |              |
|                |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #10 Lov        |            |            | 117          | 105        | 1 41       | 076          | 2.0        | 0.0       | F.0      | 100      | 100      | 011          | 65.6         |
| Base           | 59<br>CE1  | 58         | 117          | 135        | 141        | 276          | 32         | 20        | 52       | 102      | 109      | 211          | 656          |
| Added<br>Total | 651<br>710 | 651<br>709 | 1302<br>1419 | 651<br>786 | 651<br>792 | 1302<br>1578 | 0<br>32    | 0<br>20   | 0<br>52  | 0<br>102 | 0<br>109 | 0<br>211     | 2604<br>3260 |
| IULAI          | 710        | 109        | 1419         | 700        | 132        | 1370         | 32         | 20        | 52       | 102      | 109      | 211          | 3200         |
| #11 Lov        | ekin/      | /16th-     | Seelev       |            |            |              |            |           |          |          |          |              |              |
| Base           | 45         | 47         | 92           | 51         | 60         | 111          | 24         | 12        | 36       | 24       | 25       | 49           | 288          |
| Added          | 651        | 651        | 1302         | 651        | 651        | 1302         | 0          | 0         | 0        | 0        | 0        | 0            | 2604         |
| Total          | 696        | 698        | 1394         | 702        | 711        | 1413         | 24         | 12        | 36       | 24       | 25       | 49           | 2892         |
| "              |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #13 Eas        |            |            | _            |            | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Base<br>Added  | 0<br>257   | 0          | 0<br>257     | 0          | 0<br>257   | 0<br>257     | 0<br>411   | 0<br>411  | 0<br>822 | 0<br>668 | 0<br>668 | 1226         | 0<br>2672    |
| Total          | 257        | 0          | 257          | 0          | 257        | 257          | 411<br>411 | 411       | 822      | 668      | 668      | 1336<br>1336 | 2672         |
| IOCAI          | 251        | 0          | 257          | O          | 257        | 257          | 411        | 411       | 022      | 000      | 000      | 1330         | 2012         |
| #14 Sou        | th SI      | R-78 @     | I-10         | Check      | ooint      |              |            |           |          |          |          |              |              |
| Base           | 0          | 0          | 0            | 0          | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Added          | 675        | 675        | 1350         | 675        | 675        | 1350         | 0          | 0         | 0        | 0        | 0        | 0            | 2700         |
| Total          | 675        | 675        | 1350         | 675        | 675        | 1350         | 0          | 0         | 0        | 0        | 0        | 0            | 2700         |
| <b>#10</b>     | th or      | . 70 0     | 11           |            |            |              |            |           |          |          |          |              |              |
| #19 Sou        | 0          | x=78 C     | лескро<br>0  | Inc 0      | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Added          | 69         | 69         | 138          | 69         | 69         | 138          | 0          | 0         | 0        | 0        | 0        | 0            | 276          |
| Total          | 69         | 69         | 138          | 69         | 69         | 138          | 0          | 0         | 0        | 0        | 0        | 0            | 276          |
|                |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #23 Che        | ckpoi      | int We     | st of        | SR-78      |            |              |            |           |          |          |          |              |              |
| Base           | 0          | 0          | 0            | 0          | 0          | 0            | 0          | 0         | 0        | 0        |          | 0            | 0            |
| Added          | 0          | 0          | 0            | 0          | 0          | 0            | 829        | 829       | 1658     | 829      |          | 1658         | 3316         |
| Total          | 0          | 0          | 0            | 0          | 0          | 0            | 829        | 829       | 1658     | 829      | 829      | 1658         | 3316         |
| #27            |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #27<br>Base    | 0          | 0          | 0            | 0          | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Added          | 0          | 445        | 445          | 445        | 0          | 445          | 668        | 668       | 1336     | 223      | 223      | 446          | 2672         |
| Total          | 0          | 445        | 445          | 445        | 0          | 445          | 668        | 668       | 1336     | 223      | 223      | 446          | 2672         |
|                |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #28 Eas        | t Che      | eckpoi     | .nt          |            |            |              |            |           |          |          |          |              |              |
| Base           | 0          | 0          | 0            | 0          | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Added          | 206        | 0          | 206          | 0          | 206        | 206          | 223        | 223       | 446      | 429      | 429      | 858          | 1716         |
| Total          | 206        | 0          | 206          | 0          | 206        | 206          | 223        | 223       | 446      | 429      | 429      | 858          | 1716         |
| #66 Mes        | a Dr       | /T-10      | WB Ram       | ns         |            |              |            |           |          |          |          |              |              |
| Base           | 57         | 54         | 111          | 55         | 63         | 118          | 0          | 25        | 25       | 30       | 0        | 30           | 284          |
| Added          | 0          | 0          | 0            | 0          | 0          | 0            | 0          | 0         | 0        | 0        | 0        | 0            | 0            |
| Total          | 57         | 54         | 111          | 55         | 63         | 118          | 0          | 25        | 25       | 30       | 0        | 30           | 284          |
|                |            |            |              |            |            |              |            |           |          |          |          |              |              |
| #77 Mes        |            |            |              | _          |            |              |            |           |          |          |          |              |              |
| Base           | 76         | 32         | 108          | 55         | 56         | 111          | 14         | 0         | 14       | 0        | 57       | 57           | 290          |
| Added<br>Total | 0<br>76    | 0          | 100          | 0          | 0<br>5.6   | 111          | 0          | 0         | 0        | 0        | 0<br>5.7 | 0<br>5.7     | 200          |
| TOLAT          | 76         | 32         | 108          | 55         | 56         | 111          | 14         | 0         | 14       | U        | 57       | 57           | 290          |

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| Mon | Aug | 6, | 2012 | 17: | : 47 | :09 |
|-----|-----|----|------|-----|------|-----|
|-----|-----|----|------|-----|------|-----|

|                                     |             | Ric                       | Mesa                       | Solar                 |             | tric Ge<br>y Trip |                 | _               | acility           | (SEG            | F)              |                 |                   |
|-------------------------------------|-------------|---------------------------|----------------------------|-----------------------|-------------|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------------|
| Volume<br>Type                      | In          | NB Li<br>Out              | ink<br>Total               | In                    | SB L        | ink<br>Total      | In              | EB L            |                   | In              | WB L:           |                 | Total<br>Volume   |
| #111 West<br>Base<br>Added<br>Total | 0<br>0<br>0 | -10 Ch<br>0<br>418<br>418 | neckpoi<br>0<br>418<br>418 | nt<br>0<br>418<br>418 | 0<br>0<br>0 | 0<br>418<br>418   | 0<br>829<br>829 | 0<br>829<br>829 | 0<br>1658<br>1658 | 0<br>411<br>411 | 0<br>411<br>411 | 0<br>822<br>822 | 0<br>3316<br>3316 |

From: Todd Stewart [tstewart@brightsourceenergy.

com]

Sent: Monday, August 13, 2012 6:18 PM

To: Koch, Andrea@Energy

**Subject:** RE: A few more Rio Mesa Traffic Questions

# This still applies.

From: Koch, Andrea@Energy [mailto:Andrea.Koch@energy.ca.gov]

Sent: Monday, August 13, 2012 3:32 PM

To: Todd Stewart

Subject: FW: A few more Rio Mesa Traffic Questions

Hi Todd.

I still need these last few questions answered. Thanks!

From: Koch, Andrea@Energy

Sent: Thursday, August 09, 2012 5:47 PM

To: Todd Stewart

Cc: Martinez, Pierre@Energy

Subject: FW: A few more Rio Mesa Traffic Questions

Hi Todd.

I also need the remaining questions answered (see e-mail below).

I think I may already have the answer to #6, though- sorry about that- from an e-mail you sent me after submittal of the Project Amendment. Here is what you said about employee shifts. Let me know if it still applies!

We project that the Common Area staff will be 20 per shift and each power block will have 10 per shift. So on any given week there will be 80 different people on site (minimum). Total payroll however will be around 100 to account for relief shift operators and technicians and cover for vacations, holidays, training, sick time etc.

Thanks!

**Andrea** 

Andrea Koch-Eckhardt Environmental Planner II, Traffic and Land Use CA Energy Commission (916) 654-3850 From: Todd Stewart [mailto:tstewart@brightsourceenergy.com]

**Sent:** Monday, August 06, 2012 3:39 PM

**To:** Koch, Andrea@Energy

**Cc:** Martinez, Pierre@Energy; Flores, David@Energy **Subject:** RE: A few more Rio Mesa Traffic Questions

Andrea,

Below are a couple of your questions answered. I will get the rest of them answered ASAP.

# Todd

From: Koch, Andrea@Energy [mailto:Andrea.Koch@energy.ca.gov]

Sent: Monday, August 06, 2012 3:02 PM

To: Todd Stewart

**Cc:** Martinez, Pierre@Energy; Flores, David@Energy **Subject:** A few more Rio Mesa Traffic Questions

Hi Todd.

I have a few more questions for you regarding the latest Rio Mesa submittal. I think that some of the questions are the same as those I had about the original submittal. Could you provide me with the answers as soon as you can? Thanks! I've listed the questions at the end of this e-mail.

Also, I'll be out of the office for a few days starting on August 31st. I'm hoping that Bechtel can provide the revised traffic numbers by tomorrow or Wednesday at the latest so that I'll have sufficient time before I leave to complete the draft report, have it reviewed by my supervisors, and then make the necessary corrections. Let me know if this isn't possible, and I'll try to work something out with Pierre. Have you heard anything about Bechtel's timeline?

Thanks!

**Andrea** 

# **Questions:**

1) The Project Refinement shows no changes to Section 5.12.3.2 (Existing Traffic Conditions). This section of the original AFC, on page 5.12-17 under "Goods Movement", states that truck traffic would use 34<sup>th</sup> Avenue or Bradshaw Trail to access the site.

In the Project Refinement, pages 5.12-4, 5.12-5 and 5.12-6 include statements that truck traffic

would only use Bradshaw Trail.

Please clarify whether truck traffic would only use Bradshaw Trail, or whether it would use both Bradshaw Trail and 34<sup>th</sup> Avenue. I'm assuming that the trucks would probably just use Bradshaw Trail.

Answer: Project related truck traffic would use only Bradshaw Trail. The exception would be that TransCanada would most like use the secondary access (34<sup>th</sup> Avenue) to access their facilities once it is built since it would be a more direct access route to the tap and meter station location.

2) How did you come up with the conclusion that a large percentage of construction workers would carpool? What were your assumptions? How would they meet to carpool?

Answer: I will defer to URS/Bechtel for this answer.

3) It appears that the numbers in Table 5.12-6 of the Project Refinement are actually one-way trips, not roundtrips. Please confirm.

Answer: I will defer to URS/Bechtel for this answer.

4) I noticed that the submittals to the FAA were for structures of 820 feet AGL. Why is this taller than the ultimate tower height of 760 feet? Is it to accommodate taller construction cranes?

Answer: This was done for conservativeness early on in our permitting phase. The towers are still 750 feet with a 10 foot lightning rod.

5) I wanted to confirm the number of parking spaces for operations in the common area and at each power plant. From Figure 2-3 in the Project Refinement, it looks like there are 24 regular parking spaces and 2 accessible parking spaces at each power block. Is this correct? Also, from Figure 2-8, it looks like there are 79 spaces and possibly 2 accessible spaces. Is this correct?

Answer: I will defer to URS/Bechtel for this answer.

6) What is the largest shift of employees at a) the common area and b) each power plant.

Answer: I will get the answer directly.

Andrea Koch-Eckhardt Environmental Planner II, Traffic and Land Use CA Energy Commission (916) 654-3850