Meeting of the Central Valley Flood Protection Board
April 22, 2011

Staff Report – Encroachment Permit

Pacific Gas and Electric Company
Palermo to East Nicolaus 115-kV Transmission System Reconstruction Project, Yuba County

1.0 – ITEM

Consider approval of Permit No. 18648-4 (Attachment B)

2.0 – APPLICANT

Pacific Gas and Electric Company

3.0 – LOCATION

The proposed project is an element of the Palermo to East Nicolaus 115-kV Transmission System Reconstruction Project. This element is located east of Marysville and parallels the west levee of the Western Pacific Railroad Interceptor Channel east of Plumas Lake, crossing the Bear River and Yankee Slough Floodway east of State Highway 70, and terminating in East Nicolaus.
(Yuba River, Western Pacific R.R. Intercepting Channel, Bear River, and Yankee Slough, Yuba County, see Attachment A)

4.0 – DESCRIPTION

The applicant proposes to remove twenty-five (25) transmission towers that are in close proximity to the right (west) levee of the Western Pacific Railroad Interceptor Channel and replace them with twenty-five (25) new steel mono pole transmission towers that will be located a minimum of 15-feet from the landside levee toe. In addition, the applicant proposed to replace the 115kV lines over the left (south) bank levee of the Yuba River; over the right (west) levee of the Western Pacific Railroad Interceptor Channel; over the right (north) bank levee of the Bear River; and over the left (south) bank levee of Yankee Slough; and to authorize three (3) existing transmission towers inside of the Bear River/Yankee Slough Floodway.

5.0 – PROJECT ANALYSIS

Pacific Gas and Electric Company is proposing to reconstruct the 41-mile long Palermo to East Nicolaus 115-kV Transmission System (Project) serving Butte, Yuba, and Sutter counties to meet present and forecasted electric demands for the area. The Project will require the replacement of the existing 100-year old lattice steel transmission towers with hybrid tubular steel pole transmission towers to support the higher tension loads of the new system. The reconstruction Project crosses several waterways, some of which are components of the Sacramento River Flood Control Project and some that are regulated streams. The proposed reconstruction Project was divided into four (4) segments for permit review based on impacted waterways and Local Maintain Agency (LMA) boundaries.

Application No. 18648-4 includes the portion of the Project (about 12-miles) that crosses the left (south) Yuba River Levee, continuing south along the Western Pacific Railroad Interceptor Channel, and across the Bear River and Yankee Slough Floodway.

All new transmission towers will be installed a minimum of 15-feet from any levee toe and all aerial crossings over levees will exceed 25-feet in height as per Title 23 standards.

5.1 – Hydraulic Analysis

Area calculations for the three (3) transmission towers inside of the Bear River and Yankee Slough Floodway show that the transmission poles block less than 1.0% of the floodway (0.59%); therefore a hydraulic analysis is not required.

5.2 – Geotechnical Analysis

A geotechnical analysis is not required.

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- Reclamation District No. 784 has not yet formally endorsed this project but their endorsement is expected to be received soon. The proposed project was on the agenda for their April 5, 2011 Board Meeting. If there are project conditions included with the endorsement they will be incorporated into the permit as Exhibit A.

- Reclamation District No. 1001 has not yet formally endorsed this project but their endorsement is expected to be received soon. The proposed project was on the agenda for their March 30, 2011 Board Meeting. If there are project conditions included with the endorsement they will be incorporated into the permit as Exhibit B.
- The U.S. Army Corps of Engineers 208.10 comment letter has not yet been received for this application. Upon receipt of a favorable letter and review by Board staff the letter will be incorporated into the permit as Exhibit C.

7.0 – CEQA ANALYSIS

Board staff has prepared the following CEQA findings:

The Board, as a responsible agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (SCH Number: 2010082014, September 2010) and Mitigation Monitoring, Reporting, and Compliance Program for the Palermo–East Nicolaus 115-kV Transmission Line Reconstruction Project prepared by the lead agency, the California Public Utilities Commission. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at http://www.cvfpb.ca.gov/meetings/2011/04-22-2011.cfm under a link for this agenda item. These documents are also available for review in hard copy at the Board and the Butte, Sutter, and Yuba County Libraries.

The California Public Utilities Commission has determined that the project would not have a significant effect on the environment and adopted Decision 10-11-008 (Application 09-02-023) on November 19, 2010 and filed a Notice of Determination on November 22, 2010 with the State Clearinghouse. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's Mitigation Monitoring, Reporting, and Compliance Program and address impacts to air quality, biological resources, cultural resources, hazards and hazardous materials, water quality, geologic resources, noise, public services, and transportation. The description of the mitigation measures are further described in the adopted Mitigation Monitoring, Reporting, and Compliance Program.

8.0 – SECTION 8610.5 CONSIDERATIONS

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

   The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

   The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

   Reconstruction of the Palermo to East Nicolaus 115kV Transmission System will result in an overall improvement to the State Plan of Flood Control due to the removal of existing towers from the Project Works and hydraulic improvements to the impacted floodways.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

   There will be no effects to the Palermo to East Nicolaus 115kV Transmission System from reasonable projected future events.

9.0 – STAFF RECOMMENDATION

Staff recommends that the Board adopt the CEQA Findings, approve Permit No. 18648-4 conditioned upon receipt of a USACE 208.10 letter of determination confirming that the Corps has no objection to the project, and direct the Executive Officer to take necessary actions to execute the permit and to file a Notice of Determination with the State Clearinghouse.

10.0 – LIST OF ATTACHMENTS

A. Location Maps and Photos
B. Draft Permit No. 18648-4
C. Design Drawings

Design Review:	Gary W. Lemon P.E.
Environmental Review:	James Herota
Document Review:	Mitra Emami P.E., Len Marino P.E.

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Graphics/Projects/SENHSTB/Work/61081.06 PGE_Palermo_E-Nicolaus/Permits/CSLC ROW lease ROWPermitFigs.indd (09/28/10) SS

ICF INTERNATIONAL PG&E

Figure 1

Reclamation District 784 and Reclamation District 1001

Attachment A

TOWER	LATITUDE	LONGITUDE	ELEVATION
22/172	39 09 54.35351	121 33 35.13026	67.53
22/173	39 09 48.24243	121 33 31.27047	79.39
22/174	39 09 40.26732	121 33 26.22787	78.89
23/175	39 09 34.03202	121 33 22.31913	79.15
23/176	39 09 21.91733	121 33 14.67773	78.06
23/177	39 09 09.96235	121 33 07.14446	74.06
23/178	39 09 03.86570	121 33 03.30217	74.32
23/179	39 08 57.97067	121 32 59.59258	76.37
23/180	39 08 52.78970	121 32 56.32127	73.71
24/181	39 08 47.47901	121 32 52.99609	68
24/182	39 08 41.02698	121 32 48.90503	67.56
24/183	39 08 34.55453	121 32 44.81113	70.1
24/184	39 08 28.07221	121 32 40.72994	72.74
24/185	39 08 19.20026	121 32 35.14669	74.1

TOWER	LATITUDE	LONGITUDE	ELEVATION
24/186	39 08 14.53296	121 32 32.19595	71.15
29/226	39 04 03.70701	121 32 33.83063	59.14
29/227	39 03 56.87047	121 32 33.79436	58.27
29/228	39 03 50.03658	121 32 33.75263	58.42
29/229	39 03 43.45011	121 32 33.71311	56.12
29/230	39 03 36.37214	121 32 33.66763	55.83
29/231	39 03 29.53508	121 32 33.62656	50.32
30/232	39 03 22.71066	121 32 33.58440	47.34
30/233	39 03 15.86414	121 32 33.55239	47.42
30/234	39 03 08.57098	121 32 33.51085	45.35
30/235	39 03 01.27663	121 32 33.46881	42.65
30/236	39 02 53.84940	121 32 33.42066	42.39
30/237	39 02 48.89872	121 32 33.39265	43.13
30/238	39 02 41.75590	121 32 33.35294	49.68
30/239	39 02 34.33491	121 32 33.30767	50.52
31/240	39 02 26.90046	121 32 33.26236	51.12

TOWER	LATITUDE	LONGITUDE	ELEVATION
31/241	39 02 19.47029	121 32 33.22438	47.89
31/242	39 02 12.05297	121 32 33.18176	46.25
31/243	39 02 04.60764	121 32 33.13855	49.28
31/244	39 01 57.20325	121 32 33.09775	48.48
31/245	39 01 49.78612	121 32 33.05957	51.99
31/246	39 01 42.35395	121 32 33.01781	47.9
32/247	39 01 35.48414	121 32 32.97952	48.78
32/248	39 01 28.50135	121 32 32.94171	48.02
32/249	39 01 21.57589	121 32 32.90239	46.97
32/250	39 01 20.08975	121 32 32.89525	47.87
32/251	39 01 14.64281	121 32 32.86413	46.44
32/252	39 01 07.71824	121 32 32.82557	47.98
32/253	39 01 00.79149	121 32 32.78779	47.08
32/254	39 00 53.86621	121 32 32.74733	50.65
32/255	39 00 48.49340	121 32 31.70996	49.08
33/256	39 00 43.10683	121 32 30.66778	46.12

NO.	DATE	DESCRIPTION	SEARCH	SEC	COMPS.	SEC	F. B.	SEC

REVISIONS

APPROVED BY

BY: DED2
DWN. : KDPA
CHKD. : WRT6
O.K. : WRT6
DATE : 2/17/11

PALERMO-EAST NICOLAUS

Yuba River Levee-Left Bank
WPIC Levee-Right Bank

PACIFIC GAS AND ELECTRIC COMPANY

COUNTY : YUBA DIVISION :
AUTH # :
SHEET NO. 1 SHEETS 14

SA-234

REV.

Attachment A

NOTES

1. HORIZONTAL DATUM: NAD 83
   PROJECTION: CCS83 ZONE 2
2. VERTICAL DATUM: NGVD 29
3. UNITS: U.S. SURVEY FEET

HORIZONTAL 1 IN = 200 FT

Map Legend	
✕	EXISTING TOWER
☒	REMOVED TOWER

NO.	DATE	DESCRIPTION	SEARCH	SEC	COMPS.	SEC	F. B.	SEC

REVISIONS

APPROVED BY

BY: DED2
DWN. : KDPA
CHKD. : WRT6
O.K. : WRT6
DATE : 3/14/11

PALERMO-EAST NICOLAUS PLAN VIEW

PACIFIC GAS AND ELECTRIC COMPANY

COUNTY : YUBA DIVISION :
AUTH # :
SHEET NO. 1 SHEETS 2

SA-239

REV.

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DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY

THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18648-4 BD

This Permit is issued to:

Pacific Gas & Electric Company
350 Salem Street
Chico , California 95928

To authorize the aerial crossing of the 115kV transmission lines (Palermo to East Nicolaus line) over the left (south) bank levee of the Yuba River; To authorize the aerial crossing of the 115kV transmission lines (Palermo to East Nicolaus line) over the right (west) levee of the Western Pacific Railroad Interceptor Channel; To remove and replace twenty-five (25) 115kV transmission towers (Palermo to East Nicolaus line) near the right (west) levee of the Western Pacific Railroad Interceptor Channel so the new towers are outside of the Adopted Plan of Flood Control; To authorize the aerial crossing of the 115kV transmission lines (Palermo to East Nicolaus line) over the right (north) bank levee of the Bear River; To authorize three (3) existing 115kV transmission towers (Palermo to East Nicolaus line) inside of the Bear River/Yankee Slough Floodway; To authorize the aerial crossing of the 115kV transmission lines (Palermo to East Nicolaus line) over the left (south) bank levee of Yankee Slough. The project is located east of Marysville and parallels the west levee of the Western Pacific Railroad Interceptor Channel east of Plumas Lake, crossing Bear River and Yankee Slough Floodway east of State Highway 70, and terminating in East Nicolaus (Section 16, T13N, R4E, W, Reclamation Districts 784 and 1001, Bear River, WPIC, Yankee Slough, Yuba County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____ _____
Executive Officer

DWR 3784 (Rev. 9/85)

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18648-4 BD

THIRTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

FOURTEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion

FIFTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their

respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SIXTEEN: The Central Valley Flood Protection Board, Department of Water Resources, Reclamation District No. 784, and Reclamation District No. 1001 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

SEVENTEEN: If the construction project extends onto land owned in fee and/or easement by the Sacramento and San Joaquin Drainage District acting by and through the Central Valley Flood Protection Board (Board), the permittee should secure an easement, license, or temporary entry permit from the Board prior to commencement of work. Contact Angelica Aguilar at (916) 653-5782.

EIGHTEEN: No construction work of any kind shall be done during the flood season from November 1st to April 15th without prior approval of the Central Valley Flood Protection Board.

NINETEEN: The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

TWENTY: All existing tower footings within the levee section and within 15-feet from the levee toe shall be removed and backfilled with material having 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50; and shall be free of stones or lumps exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material.

TWENTY-ONE: Fill material within the levee section and within 15-feet from the levee toe shall be placed in 4- to 6-inch layers and compacted at or above optimum moisture content to not less than 90 percent relative compaction per ASTM Method D1557-91.

TWENTY-TWO: All new transmission towers shall be located off the levee section a minimum of 15-feet from the levee toe.

TWENTY-THREE: A minimum clearance of 25-feet shall be provided between the levee crown and the overhead 115 kV wire crossings.

TWENTY-FOUR: All work areas shall be restored to at least the condition that existed prior to commencement of work.

TWENTY-FIVE: Any debris that may accumulate around the transmission poles inside the Bear River and Yankee Slough Floodway shall be completely removed from the floodway following each flood season.

TWENTY-SIX: The permittee is responsible for repairing any damage to the levees or floodway caused by the installation or maintenance of the transmission towers or the 115kV power lines.

TWENTY-SEVEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.

TWENTY-EIGHT: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

TWENTY-NINE: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

THIRTY: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

THIRTY-ONE: The mitigation measures approved by the CEQA lead agency and the permittee are found in its Mitigation and Monitoring Reporting Program (MMRP) adopted by the CEQA lead agency. The permittee shall implement all such mitigation measures.

THIRTY-TWO: The permittee shall comply with all conditions set forth in the letter from Reclamation District 784 dated April XX, 2011, which is attached to this permit as Exhibit A and is incorporated by reference.

THIRTY-THREE: The permittee shall comply with all conditions set forth in the letter from Reclamation District 1001 dated April XX, 2011, which is attached to this permit as Exhibit B and is incorporated by reference.

THIRTY-FOUR: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated April XX, 2011, which is attached to this permit as Exhibit C and is incorporated by reference.

Reference: Fig. 3-3, Conceptual Structure Drawings, ***Proponent's Environmental Assessment, Palermo–East Nicolaus 115 kV Transmission Line Reconstruction Project***, ICF Jones & Stokes, February 2009

00533.08 Proj Description (12-08)

PALERMO–EAST NICOLAUS 115-kV TRANSMISSION LINE

002803.CP10.03.r (2009 CORP CD Archives - Vol 4) 06/24/2010

Figure 1.8-3

Conceptual Structure Drawings

Reference: Fig. 3-4, Hybrid Pole Typical Design, ***Proponent's Environmental Assessment, Palermo–East Nicolaus 115 kV Transmission Line Reconstruction Project***, ICF Jones & Stokes, February 2009

00533.08 Proj Description (12-08)

PALERMO–EAST NICOLAUS 115-kV TRANSMISSION LINE

002803.CP10.03.s (2009 CORP CD Archives - Vol 4) 06/24/2010

Figure 1.8-4

Hybrid Pole Typical Design