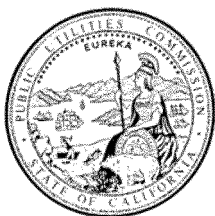


Docket: : R.12-03-014
Exhibit Number : _____
Commissioner : Michel Peter Florio
Admin. Law Judge : David M. Gamson
DRA Witness : David Siao
: _____
: _____



**DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**PREPARED TESTIMONY OF
DAVID SIAO
ON BEHALF OF DRA**

**Order Instituting Rulemaking to Integrate and
Refine Procurement Policies and
Consider Long-Term Procurement Plans
Track 1 – Local Reliability**

(R.12-03-014)

San Francisco, California
June 25, 2012

PREPARED TESTIMONY OF DAVID SIAO

	Page
Q1. WHAT IS THE SCOPE OF YOUR TESTIMONY?.....	1
Q2. WHAT IS ONCE-THROUGH COOLING (OTC)?.....	1
Q3. WHAT IS CALIFORNIA’S POLICY REGARDING OTC?.....	2
Q4. WHAT PLANTS IN THE LA BASIN AND BIG CREEK/VENTURA LOCAL CAPACITY REQUIREMENT (LCR) AREAS MUST COMPLY WITH THE POLICY?	4
Q5. WHAT PLANTS IN THE LCR AREAS ARE ASKING FOR DEADLINE EXTENSIONS AND WHAT ARE THE REASONS FOR THESE DEADLINE EXTENSIONS?.....	5
Q6. WHAT OTHER FACTORS WILL AFFECT COMPLIANCE?.....	5
Q7. CAN YOU DESCRIBE THE BASIC FACTS, TIMELINE, AND ANY OTHER RELEVANT ISSUES REGARDING EACH POWER PLANT IN THE LA BASIN AND BIG CREEK/VENTURA LCR AREAS?.....	6
Q8. PLEASE SUMMARIZE YOUR RESEARCH FOR THE SEVEN OTC PLANTS DISCUSSED IN YOUR TESTIMONY.....	7

APPENDIX

ATTACHMENTS A-D

PREPARED TESTIMONY OF DAVID SIAO

1
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3
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Once-Through Cooling Power Plants

Q1. What is the scope of your testimony?

A1. My testimony covers the OTC policy and OTC plants in California, specifically in the Los Angeles (LA) Basin and Big Creek/Ventura Local Capacity Areas (LCAs). This testimony provides information only on the OTC and Mr. Fagan refers to this testimony when making recommendations on the planning assumptions. Unless otherwise noted, the comments in Attachment C in the Appendix are based on Implementation Plan letters submitted to the State Water Resources Control Board.¹

Q2. What is once-through cooling (OTC)?

A2. In many thermal power plants in California, heat is produced by burning natural gas. Some of this heat is used to boil water and produce steam, and a steam turbine/generator set converts the heat into electricity. However, not all of the energy absorbed by the water can be converted into electricity, and this residual portion is called “waste heat.” This waste heat must be removed to condense the remaining steam back into water that can be reused in the steam turbine cycle. OTC is one method to dispose of this waste heat in which cold ocean or river water is pumped through the plant, absorbing and carrying out the plant’s waste heat back into the ocean or river. Distinct from other cooling processes, in OTC the ocean or river water passes only once through the plant - hence the name “once-through cooling.”²

In 2010, California’s OTC plants had the capacity to withdraw more than 15 billion gallons of water per day from the ocean to serve as cooling water. Marine life caught in this

¹ Implementation Plan letters, various. See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/
² How it Works: Water for Power Plant Cooling, Union of Concerned Scientists, updated 10/5/10. See: http://www.ucsusa.org/clean_energy/our-energy-choices/energy-and-water-use/water-energy-electricity-cooling-power-plant.html

1 water perish through impingement or entrainment³ as the water is respectively drawn into or
2 through these OTC plants, placing considerable stress on the local aquatic ecosystems.⁴

3 **Q3. What is California’s policy regarding OTC?**

4 A3. Section 316(b) of the Federal Clean Water Act (CWA) regulates cooling water intake
5 structures (CWIS).⁵ Power plant operators (and other “point sources” of pollution) must obtain
6 National Pollutant Discharge Elimination System (NPDES) permits, which regulate water
7 pollution- including waste heat- by regulating point sources such as OTC plants.⁶

8 In California, the State Water Resources Control Board (SWRCB) is the state agency that
9 enforces the CWA, which includes issuing NPDES permits to OTC plants.⁷

10 In order to meet CWA objectives, SWRCB enacted the “Water Quality Control Policy on
11 the Use of Coastal and Estuarine Waters for Power Plant Cooling” (the Policy) on May 4, 2010.⁸
12 The Policy greatly limits the amount of water that can be drawn by OTC plants and applies to 19
13 plants statewide. SWRCB states that the Policy is needed “to address an ongoing, critical impact
14 to the State’s waters that remains unaddressed at the national level for existing facilities despite

³ Impingement occurs when fish and other marine life are trapped against a facility’s intake screens and either cannot escape or suffer injuries that increase mortality. Entrainment happens when smaller aquatic organisms, such as larvae or eggs, are drawn through an OTC plant’s cooling system and subject to potentially lethal pressure changes, chemicals, and sheering forces.

Source: Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10, p. 1. *See:*

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf

⁴ Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10, p. 1. *See:*

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf

⁵ Ocean Standards - CWA §316(b) Regulation: Once-Through Cooling, updated 5/29/12. *See:*

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/

⁶ National Pollutant Discharge Elimination System (NPDES), updated 3/12/09. *See:*

<http://cfpub.epa.gov/npdes/>

⁷ Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10, p. 8.

See: http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf

⁸ Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10.

See: http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf

1 §316(b)'s enactment more than 35 years ago.”⁹ OTC plants are required to comply with the
2 Policy in one of two ways: reducing water intake (Track 1) or mitigating impacts to marine life
3 comparably by other means (Track 2).¹⁰

4 Track 1 compliance is the SWRCB's preferred method of compliance, and requires
5 reducing the water intake of a unit by at least 93%. In practice, this means the “retirement”
6 (demolition) of a unit and its replacement (“repowering”), generally by a newer, more efficient
7 unit with a closed cycle, wet cooling system. In order to pursue Track 2 compliance, a unit
8 owner must prove to the SWRCB's satisfaction that Track 1 compliance is infeasible. In Track 2
9 compliance, existing units are “retrofitted;” i.e., technology is added to reduce the intake of water
10 for once-through cooling purposes.¹¹ Intake must be reduced by 83.7%, or 90% of Track 1
11 compliance.¹²

12 Several generating units can be present at the site of a generation plant, and may differ in
13 age and/or technology as the plant is expanded or old units are replaced. Plant owners may
14 choose to pursue Track 1 or Track 2 compliance for individual units at the same plant. While the
15 majority of plants must comply with the Policy by 2017, most plants in the LA area will have
16 until 2020¹³ to comply with the policy due to grid reliability concerns.¹⁴

² Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10, p. 2.

See: http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf
¹⁰ Ocean Standards - CWA §316(b) Regulation: Once-Through Cooling Water Policy – Adoption and Amendments, updated 5/29/12.

See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/policy.shtml

¹¹ Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 10/1/10, page 4.

See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/policy100110.pdf

¹² Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 10/1/10, 2.A.(2)(a).(ii) and 2.A.(2)(b).(ii), p. 5. See:

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/policy100110.pdf

¹³ Fact Sheet. See:

http://www.swrcb.ca.gov/publications_forms/publications/factsheets/docs/oncethroughcooling0811.pdf

¹⁴ Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 5/4/10, p. 78-79. See:

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf

(continued on next page)

1 **Q4. What plants in the LA Basin and Big Creek/Ventura Local Capacity**
2 **Requirement (LCR) areas must comply with the Policy?**

3 **A4.** Seven OTC plants covered under the Policy are in either the LA Basin or Big
4 Creek/Ventura Local Capacity Requirement (LCR) areas. Ormond Beach and Mandalay are in
5 the Big Creek/Ventura LCA, while Morro Bay is nearby. El Segundo, Alamitos, Redondo, and
6 Huntington Beach are in the LA Basin Local Capacity Area (LCA). ¹⁵ With the exception of
7 Morro Bay, these OTC plants are following Track 1 compliance. ^{16 17}

8 The combined capacity of these seven OTC plants in the LA Basin or Big Creek/Ventura
9 LCR areas is 7,536.22 MW. Morro Bay has 650 MW of capacity. ¹⁸ El Segundo will repower
10 in 2013, and will be replaced with 560 MW of capacity for a net 110 MW loss. ¹⁹ Huntington
11 Beach Units 3 and 4 have 452 MW of capacity; ²⁰ they will retire permanently in November,
12 2012 ²¹ but will be replaced by the 500 MW Walnut Creek plant, which has a Commercial
13 Operation Date (COD) of May 1, 2013. ²²

(continued from previous page)

^f
¹⁵ Presentation of 2013 Final LCR Study Results, Big Creek/Ventura and LA Basin, 4/12/12, slide 2. *See:*
http://www.caiso.com/Documents/Presentation_Final2013LocalCapacityRequirements_LABasin_BigCreekVenturaAreas_Apr12_2012.pdf and Attachment A.

¹⁶ GenOn Response to DRA Data Request for Rulemaking 12-03-014, 6/11/12, p. 8.

¹⁷ Implementation Plan letters for respective plants, excepting Mandalay and Ormond Beach. *See:*
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/.

¹⁸ CAISO Generating Capability List. *See:*
<http://www.caiso.com/Documents/GeneratingCapabilityList.xls> and Attachment B.

¹⁹ El Segundo Implementation Letter, 3/30/2011, p. 2. *See:*
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/el_segundo/docs/esgs_ip2011.pdf

²⁰ CAISO Generating Capability List. *See:*
<http://www.caiso.com/Documents/GeneratingCapabilityList.xls>

²¹ AES Response to DRA Data Request for Rulemaking 12-03-014, 6/15/12, p. 2.

²² Walnut Creek Energy Park Monthly Compliance Report No. 9, 2/12, p.18. *See:*
http://www.energy.ca.gov/sitingcases/walnutcreek/compliance/submittals/MCR_09_Feb_2012.pdf

1 **Q5. What plants in the LCR areas are asking for deadline extensions and what**
2 **are the reasons for these deadline extensions?**

3 **A5.** AES Southland, LLC, the owner of the Redondo (1,356 MW), Huntington Beach (904
4 MW), and Alamitos (2,010 MW) generating stations has asked for partial deadline extensions for
5 its three plants. AES states it needs to extend its deadline out six years- from 2020 to 2024- for
6 its Redondo and Alamitos plants in order to stagger its repowers and maintain grid reliability.
7 AES is asking for a partial deadline extension to 2022 for Huntington Beach, which has fewer
8 units (Units 1 and 2, 452 MW) in need of repowering. However, as stated by AES in its
9 implementation plan letters submitted to the SWRCB, the schedules may slip by 1-2 years as the
10 previous LTPP did not finish addressing all OTC issues.²³

11 NRG's Cabrillo Power, LLC, which owns the El Segundo Generating Station (670 MW),
12 is asking for 2017 deadline extension for El Segundo's Unit 4 (335 MW), as it also needs to
13 stagger compliance at this generating station.²⁴

14 A recent March 2012 Statewide Advisory Committee on Cooling Water Intake Structures
15 (SACCWIS) report²⁵ recommended considering extending deadlines on a unit-by-unit basis, and
16 updating the Policy by the end of 2012 to reflect this change.

17 **Q6. What other factors will affect compliance?**

18 **A6.** Major factors that will affect compliance in either the LA Basin or Big Creek/Ventura
19 Local Capacity Requirement (LCR) areas include:

- 20 1. The need for continued grid reliability;
- 21 2. Ability to obtain power purchase agreements and permits;

²³ AES Response to DRA Data Request for Rulemaking 12-03-014, 6/15/12, pages 1-2 and 6-7 on respective revised implementation letters.

²⁴ El Segundo Implementation Letter, 3/30/2011, p. 6. *See:*
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/el_segundo/docs/esgs_ip2011.pdf

²⁵ Report of the Statewide Advisory Committee on Cooling Water Intake Structures, 3/12/12, p. 2. *See:*
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/saccwis/docs/rpt031912.pdf

- 1 3. Sufficient time to comply with the policy;
- 2 4. Local opposition;
- 3 5. Current economic conditions and;
- 4 6. The regulatory environment.²⁶

5 However, after conducting discovery, DRA learned that all plants in the LA Basin and
6 Big Creek/Ventura LCA areas expect to be able to continue operations, either under valid
7 permits, under an administrative extension (i.e. if a permit expires during the permit renewal
8 application process), or after receiving requested renewals or modifications for their applicable
9 permits. In other words, permit approval may not negatively affect a plant's ability to comply
10 with the Policy. However, Dynergy has indicated uncertainty regarding what- if any- additional
11 permits may be needed for Morro Bay to meet compliance under Track 2, and therefore the
12 likelihood of obtaining those permits.²⁷

13 **Q7. Can you describe the basic facts, timeline, and any other relevant issues**
14 **regarding each power plant in the LA Basin and Big Creek/Ventura LCR**
15 **areas?**

16 **A7.** Appended to my testimony as Attachment C are tables for each plant in the LA Basin and
17 Big Creek/Ventura LRA areas. Each table describes the basic facts for each generation plant: its
18 name, owner, capacity (for individual units and the total plant), location and utility, and Local
19 Capacity Area. Tables also include the Policy compliance deadline, compliance strategy, and
20 compliance technology, if applicable. Unless otherwise noted, unit net dependable capacity data

²⁶ Implementation Plan letters, various. *See:*

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/

²⁷ AES, Dynergy, GenOn, and NRG Responses to DRA Data Request for Rulemaking 12-03-014.

1 is from the CAISO,²⁸ and all other following information is from the respective Implementation
2 Plan letter submitted to the SWRCB.²⁹

3 **Q8. Please summarize your research for the seven OTC plants discussed in your**
4 **testimony.**

5 **A8. The following table summarizes my research for the seven OTC plants**
6 **discussed in my testimony.**

7

²⁸ CAISO Generating Capability List. *See:*
<http://www.caiso.com/Documents/GeneratingCapabilityList.xls>

²⁹ Implementation Plan letters, various. *See:*
http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/

Table 1, OTC plants in Big Creek/Ventura and LA Basin LCR Areas

Plant	Owner	Local Capacity Area	Compliance Track	Compliance Technology	Compliance Deadline	Net Reliable Capacity	Replacement Capacity	Net Change
Alamitos	AES	LA Basin, West LA subarea	Track 1 (Repower)	Simple-cycle or combined-cycle gas turbines	12/31/2020	2,010 MW	2,170 MW	160 MW
El Segundo	NRG	LA Basin, El Nido subarea	Track 1 (Repower)	Rapid response, dry-cooled combined cycle units	12/13/2015	670 MW	560 MW	(110 MW)
Huntington Beach Units 1 & 2	AES	Los Angeles Basin, Ellis sub-subarea	Track 1 (Repower)	Simple-cycle or combined-cycle gas turbine	12/31/2020	452 MW	400 MW	(52 MW)
Huntington Beach Units 3 & 4	AES	Los Angeles Basin, Ellis sub-subarea	Track 1 (Repower)	N/A; capacity transferred to Walnut Creek Energy Park, which has natural gas-fired combustion turbine-generators	12/31/2020 (schedule to retire 11/1/2012)	452 MW	500 MW (at Walnut Creek Energy Park)	48 MW
Mandalay	GenOn	Big Creek/Ventura; Moorpark subarea	Track 1 (Repower)	TBD	12/31/2020	430 MW	TBD	TBD
Morro Bay	Dynergy	Big Creek/Ventura	Track 2 (Retrofit)	TBD in 2014; (Simple-cycle gas turbine if switch to Track 1)	12/31/2015	650 MW	164 MW (if switch to Track 1)	0 MW (if Track 2 successful)
Ormond Beach	GenOn	Big Creek/Ventura; Moorpark subarea	Track 1 (Repower)	TBD	12/31/2020	1,516 MW	TBD	TBD
Redondo Beach	AES	Los Angeles Basin, Western Los Angeles subarea	Track 1 (Repower)	Combined-cycle gas turbine	12/31/2020	1,356 MW	1,170 MW	(186 MW)

APPENDIX

ATTACHMENT A



California ISO
Shaping a Renewed Future

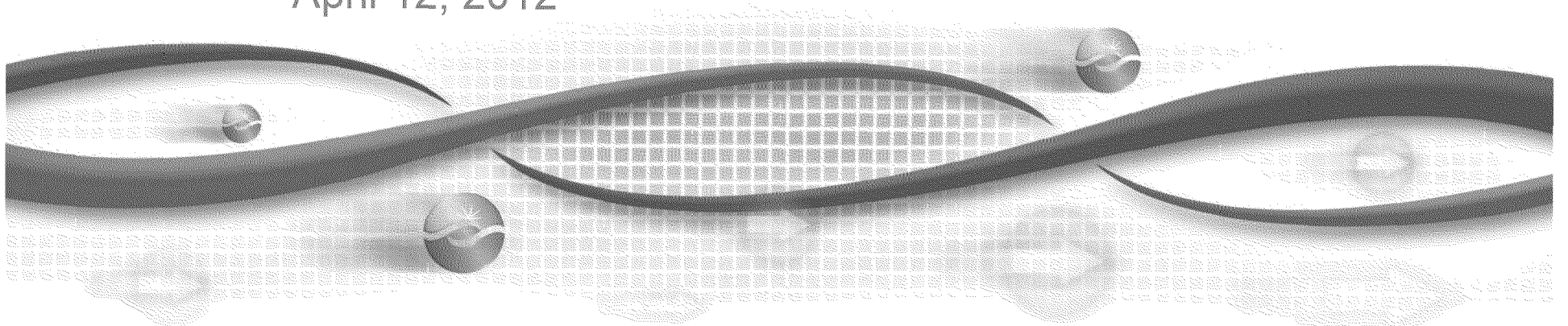
2013 Final LCR Study Results Big Creek/Ventura and LABasin

Yi Zhang

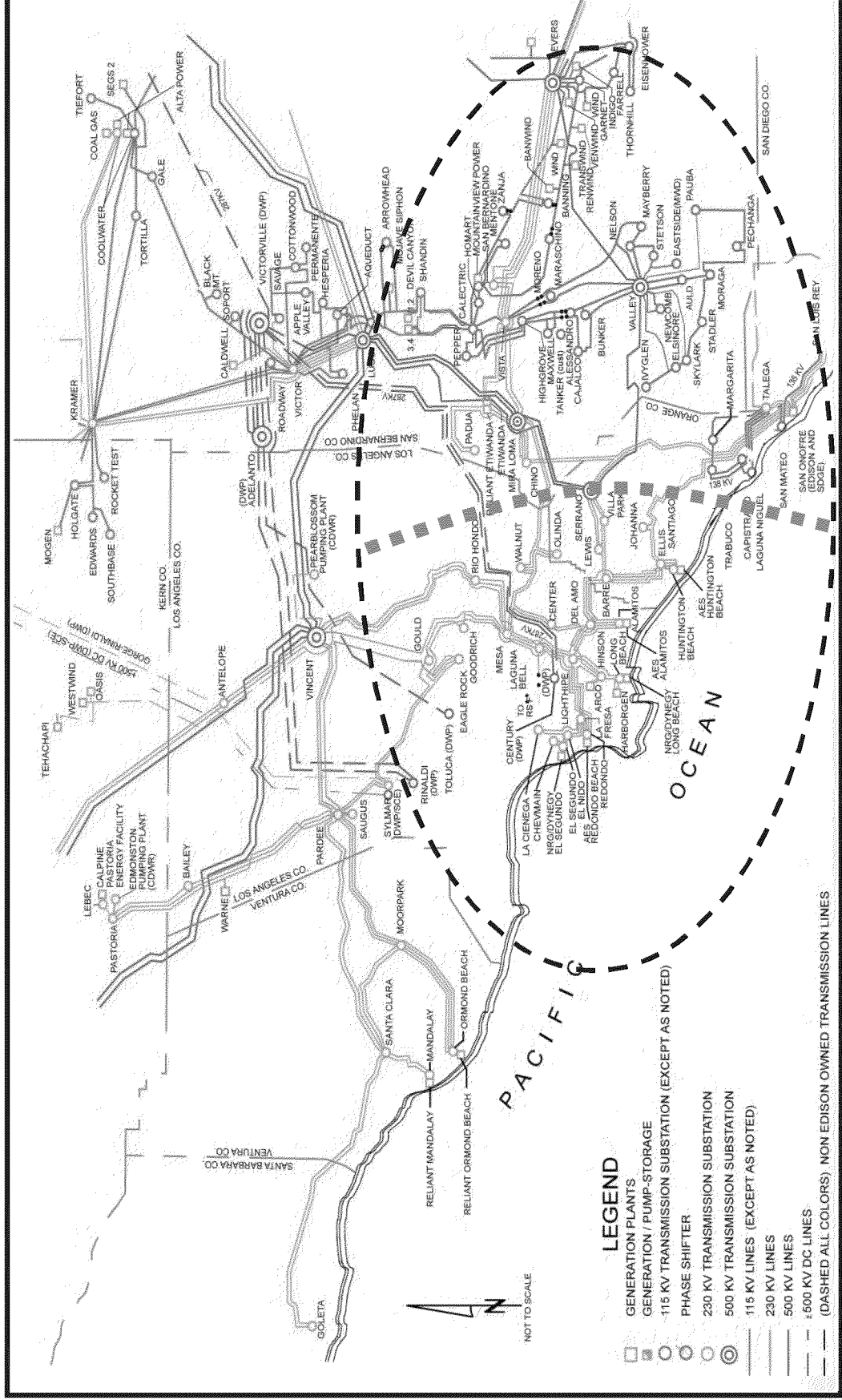
Senior Regional Transmission Engineer

Stakeholder Meeting

April 12, 2012



LA Basin Area



ATTACHMENT B

Master CAISO	Key to Color Coding Used In Table Below				HYDRO	8/23/1990	0.45
Revised to reflect Monday, May 21, 2012	TEXT	Physical unit which is scheduled individually			HYDRO	8/19/1990	1
	TEXT	Aggregated Scheduling Unit composed of multiple physical units			COMBUSTION TURBINE	10/16/1991	57.9
55500	TEXT	Aggregated Unit			HYDRO	2/21/1986	1.5
56000	33	PGAE	25C013	BIOMASS	STEAM	6/29/1989	33
Generating Unit Name / Description	Net Dependable	PTO Area	Owner or QF ID	ISO Classification	Unit Type	Commercial	Nameplate
MESA AREA LUMPED QF UNITS		PGAE	VARIOUS	HYDRO	HYDRO		
Alamitos 1	174.56	SCE	AES	THERMAL	STEAM	1/1/1956	175
Alamitos 2	175	SCE	AES	THERMAL	STEAM	1/1/1957	176
Alamitos 3	332.18	SCE	AES	THERMAL	STEAM	1/1/1961	322
Alamitos 4	335.67	SCE	AES	THERMAL	STEAM	1/1/1962	320
Alamitos 5	497.97	SCE	AES	THERMAL	STEAM	1/1/1999	482
Alamitos 6	495	SCE	AES	THERMAL	STEAM	1/1/1966	481
El Segundo 3	335	SCE	DYNEGY	THERMAL	STEAM	1/1/1964	335
El Segundo 4	335	SCE	DYNEGY	THERMAL	STEAM	1/1/1965	335
Huntington Beach 1	225.75	SCE	AES	THERMAL	STEAM		226
Huntington Beach 2	225.8	SCE	AES	THERMAL	STEAM		226
Huntington Beach 3	225	SCE	AES	THERMAL	STEAM	7/31/2002	225
Huntington Beach 4	215	SCE	AES	THERMAL	STEAM	8/7/2003	225

Mandalay 1	215	SCE	RRI Energy Mandalay, Inc.	THERMAL	STEAM	1/1/1959	215
Mandalay 2	215.29	SCE	RRI Energy Mandalay, Inc.	THERMAL	STEAM	1/1/1959	215
Mandalay 3 GT	130	SCE	RRI Energy Mandalay, Inc.	PEAKER	COMBUSTION TURBINE		130
Morro Bay Unit 3	325	PGAE	Dynegy Morro Bay, LLC	THERMAL	STEAM	12/1/1962	300
Morro Bay Unit 4	325	PGAE	Dynegy Morro Bay, LLC	THERMAL	STEAM	1/1/1963	300
Ormond Beach Unit 1	741.27	SCE	RRI Energy Ormond Beach, Inc.	THERMAL	STEAM	1/1/1971	750
Ormond Beach Unit 2	775	SCE	RRI Energy Ormond Beach, Inc.	THERMAL	STEAM	1/1/1971	750
Redondo Unit 5	178.87	SCE	AES	THERMAL	STEAM	1/1/1954	175
Redondo Unit 6	175	SCE	AES	THERMAL	STEAM	1/1/1957	175
Redondo Unit 7	505.96	SCE	AES	THERMAL	STEAM	1/1/1967	480
Redondo Unit 8	495.9	SCE	AES	THERMAL	STEAM	1/1/1967	480

ATTACHMENT C

Table 1: Morro Bay Power Plant

Plant: Morro Bay Power Plant	Owner: Dynergy Morro Bay, LLC
Units and Net Dependable Capacity: 3 (325 MW), 4 (325 MW). 650 MW total	
Location: Morro Bay, San Luis Obispo County	Local Capacity Area: Near Big Creek/Ventura LCA
Compliance Deadline: 12/31/2015	
Strategy: Track 2. Otherwise, repower at ~164 MW (net 486 MW less if successful as planned) at new site using Morro Bay air credits.	
Compliance Technology: TBD; will research until 4/13 and decide in 1/14. If repower, natural gas-fired simple-cycle turbine.	

Summary: Contracts and permits are concerns. Dynergy believes it is unlikely to find a new contract after its current one expires in October 2013, that it has a relatively tight deadline, and that success uncertain. A repower would result in a 486 MW net loss of capacity, while retirement would leave a 650 MW net loss of capacity. SACCWIS recommended against a deadline extension due to a lack of reliability issues if Morro Bay units retired.¹

Timeline: Dynergy will decide compliance measure by 2014. It will then submit an amended compliance plan; if the plan is approved, Dynergy will procure, construct, and comply by 2015. Dynergy projects possible outages for 2 months near end of 2015 for Morro Bay. A repower would take 2 to 3.5 years, depending on permitting time, and likely need a deadline extension if the repower is not commenced by 2013.

¹ Report of the Statewide Advisory Committee on Cooling Water Intake Structures, 3/12/12, p. 6. See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/saccwis/docs/rpt031912.pdf

Other facts: Morro Bay is designed as a baseload plant. The CEC has approved new combined cycle and peaker projects in the area that will add significant additional capacity. These include Avenal (600 MW, 80 miles to the Northeast, approved December, 2009), Lodi (296 MW, approved April, 2010), Riverside (Inland Empire Unit 2, 337 MW, operational in May, 2010). An additional proposed 850 MW peaker plant, CPV Sentinel Energy Project, located near Palm Springs, secured the emission reduction credits in 2010 needed for future CEC approval.² Morro Bay is not critical for system or local reliability. On May 30, Dynergy confirmed Morro Bay will remain open for CAISO dispatch (if it can remain economically viable) while it seeks new output contracts after Edison cancelled its contract with Morro Bay.³

Table 2: Alamitos Generating Station

Plant: Alamitos Generating Station	Owner: AES
Units and Net Dependable Capacity: 1 (174.56 MW), 2 (175 MW), 3 (332.18 MW), 4 (335.67 MW), 5 (497.97 MW), 6 (495 MW). 2,010.38 MW total.	
Location: Long Beach, Los Angeles County	Local Capacity Area: Los Angeles Basin, Western Los Angeles subarea
Compliance Deadline: 12/31/2020	
Strategy: Track 1 or retire. May use reclaimed wastewater (uncertain). 5 and 6 to be retired first.	
Compliance Technology: Simple-cycle or combined-cycle gas turbines	

Summary: AES stated there are many unknowns in the process of complying with the Policy, specifically from the LTTP and RFO processes. Alamitos indicated they think they need a PPA,

² Status of All Projects, California Energy Commission, updated 6/19/12. See: http://www.energy.ca.gov/sitingcases/all_projects.html

³ California Current, Vol. 10 No. 22, June 1, 2012, p. 13.

but Alamitos, Huntington Beach, and Redondo procurement needs to be staggered due to concerns from SCE with AES being a single large counterparty.

Timeline: The earliest certainty will be in 2014, after the SCE LTPP RFO solicitation. AES prefers a long-term (10+ year) contract, but is willing to enter into an AB 1576 (cost-plus) PPA. AES is asking for a deadline extension to 2026 and stated in its implementation plan letter that this was due in part to OTC issues not being fully resolved in the 2010 LTPP. AES estimates a 6 year timeline beginning with procurement, CEC permitting for 18-24 months, then demolition and construction. AES describes 3 phases; construction would be completed in 2026. Dates have been pushed back 2 years because OTC issues were not fully addressed in the 2010 LTPP. 400 MW would be completed in 2020, with Units 5 and 6 retiring 90 days prior to the completion of this 400 MW. 300 MW would be completed in 2020, and 400 MW in 2021. 700 MW would be completed in 2024 with the retirement of Units 1 and 2, and construction would conclude with 370 MW built in 2026 as well as the retirement of Units 3 and 4. AES projects Alamitos will be at 1,417 to 2,340 MW throughout this transition.

Other facts: The new generation AES proposes would support renewable energy. Constraints to compliance include transmission, load, and Resource Adequacy (RA) (AB 1318).

Table 3: El Segundo Generating Station

Plant: El Segundo Generating Station	Owner: NRG (Cabrillo Power)
Units and Net Dependable Capacity: 3 (335 MW), 4 (335 MW). 670 MW total.	
Location: El Segundo, Los Angeles County	Local Capacity Area: Los Angeles Basin, El Nido subarea
Compliance Deadline: 12/13/2015	
Strategy: Track 1.	
Compliance Technology: Rapid response, dry-cooled combined cycle units.	

Summary: Unit 3 is expected to meet compliance 2 years early in 2013. In 2013, SACCWIS will advise the SWRCB on the need for a deadline extension.⁴

Timeline: NRG will close Unit 3 in 2013- 2 years early- within 90 days of Units 5-8's COD in the summer of 2013. In other words, NRG will repower Units 1 and 2 with Unit 3's emissions credit. The result will be a 110 MW net loss of capacity.

NRG is asking for a 2017 deadline extension for Unit 4, which would average out with early Unit 3 compliance. Unit 4's repower COD is unknown. As of the filing of El Segundo's Implementation Plan letter in 2011, a PPA, CEC application of recertification, and other permits were not yet obtained for Unit 4.

Other facts: There is partial LCR need in its subarea, which can be met by repowering and other non-OTC generation in the area.⁵

Table 4: Mandalay Generating Station

Plant: Mandalay Generating Station	Owner: RRI Energy Mandalay, Inc.; GenOn Energy, Inc.
Units and Net Dependable Capacity: 1 (215 MW), 2 (215.29 MW). 430.29 MW total.	
Location: Oxnard, Ventura County	Local Capacity Area: Big Creek/Ventura; Moorpark subarea
Compliance Deadline: 12/31/2020	
Strategy: Track 1- GenOn will switch from Track 2 in mid-2012.	
Compliance Technology: N/A	

⁴ Report of the Statewide Advisory Committee on Cooling Water Intake Structures, 3/12/12, p. 13. See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/saccwis/docs/rpt031912.pdf

⁵ Report of the Statewide Advisory Committee on Cooling Water Intake Structures, 3/12/12, p. 7. See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/saccwis/docs/rpt031912.pdf

Summary: GenOn cited uncertainty due to the need to obtain a financially viable contract against compliance costs, as well as the current economy, regulatory environment, and other factors.

Timeline: TBD

Other facts: GenOn is currently a party to off-take agreements for one of the units. Mandalay can provide RA and several other ancillary services. Mandalay’s Units are being redesigned for faster ramp and lower minimum load.

Table 5: Ormond Beach Generating Station

Plant: Ormond Beach Generating Station	Owner: RRI Energy Ormond Beach, Inc.; GenOn Energy, Inc
Units and Net Dependable Capacity: 1 (741.27 MW), 2 (775 MW). 1,516.27 MW total.	
Location: Oxnard, Ventura County	Local Capacity Area: Big Creek/Ventura; Moorpark subarea
Compliance Deadline: 12/31/2020	
Strategy: Track 1- GenOn will switch from Track 2 in mid-2012.	
Compliance Technology: N/A	

Summary: GenOn cited uncertainty due to the need to obtain a financially viable contract against compliance costs, as well as the current economy, regulatory environment, and other factors.

Timeline: TBD

Other facts: Ormond Beach can provide RA and several other ancillary services.

Table 6: Redondo Generating Station

Plant: Redondo Generating Station	Owner: AES
Units and Net Dependable Capacity: 5 (178.87 MW), 6 (175 MW), 7 (505.96 MW), 8 (495.9 MW). 1,355.73 MW total.	
Location: Redondo Beach, Los Angeles County	Local Capacity Area: Los Angeles Basin, Western Los Angeles subarea and El Nido subarea
Compliance Deadline: 12/31/2020	
Strategy: Track 1. 1,170 MW repower, net 185.73 MW loss if successful as planned.	
Compliance Technology: New combined-cycle gas turbine generation	

Summary: AES stated there are many unknowns in the process of complying with the Policy, specifically from the LTTP and RFO processes. Redondo states it needs a PPA, but Alamitos, Huntington Beach, and Redondo procurement needs to be staggered due to concerns from SCE with AES being a single large counterparty.

Timeline:

AES is asking for a deadline extension to 2026, and stated two reasons in its implementation plan letter: in order to maintain grid stability and because OTC issues were not fully resolved in the 2010 LTTP. AES describes two phases, with four years between CODs for grid stability. Dates have been pushed back 2 years because OTC issues were not fully addressed in the 2010 LTTP. In the first phase, 900 MW of capacity will be completed in 2020/2021, with Units 7 and 8 retiring in 2020. Units 5 and 6 would retire in 2024, and 270 MW of repowered capacity would be completed by 2026. During this transition, capacity will not exceed 1,656 MW.

Other facts: Local residents, including council member Bill Brand, are opposed to the repowering of Redondo.⁶ It has a Tolling Agreement through May 2013, plus a five-year option to extend.

Table 7: Huntington Beach Generating Station

Plant: Huntington Beach Generating Station	Owner: AES
Units and Net Dependable Capacity: 1 (225.75 MW), 2 (225.8 MW), 3 (225 MW), 4 (227 MW). 903.55 MW total.	
Location: Long Beach, Los Angeles County	Local Capacity Area: Los Angeles Basin, Western Los Angeles subarea and Ellis sub-subarea
Compliance Deadline: 12/31/2020	
Strategy: Units 3 and 4 retired in end of 2011, 9 years early. Track 1 for Units 1 and 2.	
Compliance Technology: Either new simple-cycle or combined-cycle gas turbine.	

Summary: Units 3 and 4 were sold to Edison Mission Energy for their 450 MW of capacity for “Walnut Creek Energy LLC, in the City of Industry. The project [is] a 500-megawatt advanced technology plant.”⁷ Walnut Creek was approved by the CEC in 2008⁸ and construction is expected to be completed in 2013. However, emissions allowances must be obtained separately,

⁶ Bill Brand website, posted 6/5/12. See: <http://billbrandrb.wordpress.com/2012/06/05/vote-against-a-new-aes-redondo-power-plant/>

⁷ AES sells two units to Edison affiliate, 6/13/11. See: http://articles.hbindependent.com/2011-06-13/news/tn-hbi-0616-power-20110613_1_aes-plans-aes-huntington-beach-llc-aes-southland

⁸ Walnut Creek Energy Park Power Plant Licensing Case. See: <http://www.energy.ca.gov/sitingcases/walnutcreek/index.html>

and the sale of these units reduce the new generation capacity AES can develop per SCAQMD Rule 1304 (a) (2).²

AES states that obtaining an additional 450 MW of emissions permits could not be done until 2018 at the earliest. It also states that the LTPP and RFO processes create additional uncertainty in its ability to comply with the Policy. Huntington Beach Units 1 and 2 need a PPA, but Alamitos, Huntington Beach, and Redondo procurement needs to be staggered due to concerns from SCE with AES being a single large counterparty.

Timeline: In a revised implementation letter, AES asked for a partial deadline extension to 2022. The compliance schedule is to take place in 2 phases, with 4 years between CODs; the first 470 MW of capacity COD is schedule for 2019, concurrent with the retirement of Units 3 and 4; in the second phase, 400 MW of capacity would meet their COD in 2022, concurrent with the retirement of Units 1 and 2.

Units 3 and 4 were retired at the end of 2011, nine years early. However, due to the SONGS outage, these units were temporarily repowered for 90 days starting May 11, 2012. Units 3 and 4 are to permanently shut down on November 1, 2012.¹⁰

Other facts: There is a tolling agreement with JP Morgan for Units 1 and 2, and a contract with SCE for Units 3 and 4. Units 3 and 4 were designed as baseload, while Units 1 and 2 were designed for cycling.

² AES Response to DRA Data Request for Rulemaking 12-03-014, 6/15/12, p. 10.

¹⁰ AES Response to DRA Data Request for Rulemaking 12-03-014, 6/15/12, p. 2.

WITNESS QUALIFICATIONS

Q1. What is your name and business address?

A1. My name is David Siao. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q2. By whom are you employed and what is your job title?

A2. I am employed by the California Public Utilities Commission as a Public Utilities Regulatory Analyst II in the Electricity Planning and Policy Branch of the Division of Ratepayer Advocates (DRA).

Q3. Please describe your educational background and professional experience.

A3. I received a Bachelor of Arts Degree in Economics with a minor in Business Administration from UC Berkeley in 2004. I received a Master of Arts Degree in International Environmental Policy, with a focus on energy policy, from the Monterey Institute of International Studies in 2010.

I have over a year and a half of combined experience at the Energy Commission and Public Utilities Commission working on renewable energy policy and energy regulatory issues.

Q4. What is your area of responsibility in this proceeding?

A4. I am an expert witness for DRA in this proceeding. I am sponsoring testimony on once-through cooling (OTC).

Q5. What is the scope and purpose of your testimony?

A5. My testimony covers the OTC policy and OTC plants in California, specifically in the LA Basin and Big Creek/Ventura Local Capacity Areas (LCRs). The purpose of my testimony is to provide basic information about individual OTC plant compliance deadlines and factors potentially affecting this compliance.

Q6. Does this conclude your testimony?

A6. Yes.

ATTACHMENT D

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Integrate
and Refine Procurement Policies and
Consider Long-Term Procurement Plans.

Rulemaking 12-03-014
(Filed March 22, 2012)

**CORRECTED RESPONSE TO DIVISION OF RATEPAYER ADVOCATES' FIRST SET
OF DATA REQUESTS TO AES SOUTHLAND, LLC**

Seth D. Hilton
STOEL RIVES LLP
555 Montgomery Street, Suite 1288
San Francisco, CA 94111
Telephone: (415) 617-8913
Email: sdhilton@stoel.com

Attorneys for AES Southland, LLC

Dated: June 22, 2012

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Integrate
and Refine Procurement Policies and
Consider Long-Term Procurement Plans.

Rulemaking 12-03-014
(Filed March 22, 2012)

**CORRECTED RESPONSE TO DIVISION OF RATEPAYER ADVOCATES' FIRST SET
OF DATA REQUESTS TO AES SOUTHLAND, LLC**

AES Southland LLC ("AES SL") submits the following corrected responses to Division of Ratepayer Advocates' First Set to Data Requests. Please note that this response corrects an error in AES SL's original response to Request No. 9. In all other respects, this response is identical to the original response.

Request No. 1:

Current Contract: Are the units in your company's generation stations currently under contract to provide power, capacity, resource adequacy, ancillary services, or other energy-related products?

- a. If so, please explain for each unit:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.

- iv. Please explain if, and how, this will affect your units' ability to successfully meet the specified SWRCB's compliance deadline, in whole or part.
- b. If not (e.g., your company has chosen to place the unit on the spot market, or has been unsuccessful in submitting RFO bid(s)), please explain any facts that impact the timing of the units' compliance with the SWRCB deadline.

Response to Request No. 1:

AES SL operates 14 generating units across 3 locations; AES Alamitos (AL) located in Long Beach, AES Huntington Beach (HB) located in Huntington Beach and AES Redondo Beach (RB) located in Redondo Beach. All of these units, except for HB Units 3 and 4 are contracted with a subsidiary of JP Morgan under a long term Tolling Agreement (TA). This TA conveys to JP Morgan the rights to capacity, energy and ancillary services from the 12 units. This Agreement became effective June 1, 1998 with an initial term of 15 years and a 5 year extension option that can be exercised by either party without the consent of the other party. In addition, the AES SL loan documents require the option to be exercised. Therefore, the Agreement effectively expires May 31, 2018 which includes the 5 year extension. HB Unit 3 and 4 are currently contracted directly with the CAISO under a Capacity Procurement Mechanism (CPM) contract which became effective May 11, 2012 and has a current term of 90 days. Units 3 and 4 at HB are owned by a subsidiary of Edison Mission Energy and HB operates the units under a lease agreement. This agreement requires HB to shut down and permanently retire the units by November 1, 2012.

AES SL intends to satisfy the OTC requirements through Track 1 by replacing its existing generating units with modern air cooled combined cycle facilities. AES SL's

obligations under the TA will be fulfilled by running the relevant units through the term of that Agreement. As such, there are two primary considerations to establishing the time required to accomplish Track 1 compliance. First and foremost, AES SL's generating units are critical to serving the Los Angeles load and ensuring grid reliability and stability. It is not feasible for AES SL to retire its entire fleet at the same time and still maintain grid reliability. The construction of new generation and subsequent retirement of existing generation at the AES SL locations must be phased in order to maintain local reliability. Second, there is a limited amount of physical space at each location that is not currently utilized for power generation and that can be used for repowering. As such, AES SL's plans include constructing the first phase of new generation on the limited available space at each site. Once the currently available space is developed, AES SL will need to demolish and remove existing generating units to enable space for additional new generation. This process of building, demolishing, building, demolishing (and at AL additional building) potentially requires incremental time beyond the current OTC compliance deadline for some generating units.

Request No. 2:

Future Contracting: Do you have any contract that extends beyond the compliance deadline or present plans to enter into a long-term contract in the future that would extend the operation of the unit past the compliance deadline?

- a. If so, please explain for each generation station, or individual units if applicable:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.

- iv. Please explain if, and how, this will affect your units' ability to successfully meet the specified SWRCB compliance deadline, in whole or part.

Response to Request No. 2:

AES SL does not currently have any contracts extending beyond the compliance deadline. See response to Request No. 1 for details on the relevant contracts.

Request No. 3:

Permitting: From now until the units' SWRCB compliance deadline, are any of your generation stations in the process of, or will any of your generation stations need to go through the process of, renewing or obtaining any permits?

- a. If so, please explain:
 - v. The permits the station will need to renew or obtain;
 - vi. The estimated amount or range of time it would take to obtain the permits;
 - vii. The likelihood of obtaining such permits.

Response to Request No. 3:

AES SL is required to renew both its NPDES and Title V air permits for existing units prior to the SWRCB compliance deadline. AES SL has submitted its NPDES renewal applications, (which are due every 5 years), in a timely manner and is waiting for action from the SWRCB. With respect to its Title V air permits, AES SL will submit renewal applications as required every 5 years. These renewal applications will **not** include changes or modification and as such will be administrative in nature, and therefore AES SL expects that the relevant agencies will likely renew the permits. The specific dates and circumstances of the Title V and NPDES permit renewals are detailed below:

HB – Title V issued May 4, 2011 expires on May 3, 2016. At such time a renewal is expected.

NPDES application for renewal submitted to the Santa Ana RWQCB on January 31, 2011. The SWRCB has yet to act on the permit application; HB continues to operate under an extension of the existing NPDES permit which became effective on October 14, 2006, under a “permit application shield”. The existing NPDES permit was to expire on August 1, 2011.

AL – Title V issued October 10, 2008 expires on October 9, 2013. At such time a renewal is expected. NPDES application for renewal submitted to Los Angeles RWQCB in 2004. No action on the renewal has been taken to date, Alamitos continues to operate under a permit application shield and extension of the NPDES permit issued April 25, 2000 (revised May 30 and again on July 14, 2000). The existing NPDES permit was to expire on May 10, 2005.

Redondo Beach – Title V issued February 27, 2009 expires on February 26, 2014. At such time a renewal is expected. NPDES application for renewal submitted to Los Angeles RWQCB in 2004. No action on the renewal has been taken to date. Redondo Beach continues to operate under a permit application shield and extension of the NPDES permit issued May 9, 2000 (revised August 11, 2000). The existing NPDES permit was to expire on May 10, 2005

No other permits are in need of renewal or obtainment.

Request No. 4:

Meeting Compliance Deadline: Will your company’s generation unit(s) be able to fully meet their respective compliance deadlines? Please provide separate answers for each generation plant (or unit, if necessary), and include any major contributing factors - e.g. contracting, permitting, or community opinion - affecting these answers.

- a. If your generation station is in partial or complete non-compliance by the deadline, what are your company’s back-up plans?

- i. Please describe the time frame and likelihood of success for such plans.
 - ii. If you have already stated the backup plan(s) for your units in documents submitted to the SWRCB, please produce these documents and state whether you have changed your plan(s) since submitting an implementation letter to the SWRCB.
- b. If your company's stations or units are being retired in order to transfer the permits to another station, what is the timeline and likelihood of that station successfully meeting its Commercial Operation Date?

Response to Request No. 4:

AES SL's compliance plan titled Implementation Plan Statewide Policy Use of Coastal and Estuarine Water Power Plant Cooling ("Plans") provided to the SWRCB on April 1, 2011, and updated June 16, 2011 includes detailed information and explanation about how AES SL will respond to the compliance deadline. AES SL is providing with this response a copy of each Plan (one per location). The Plans include the full retirement of the current AES SL fleet to enable the development of new generating facilities to meet needs in the Los Angeles Basin Local Capacity Area.

Request No. 5:

Compliance Deadline Extension: If applicable, do you have any information from which you can predict the likelihood that that your company's generation stations will obtain the extended compliance deadline requested in their respective implementation letters to the SWRCB?

Response to Request No. 5:

AES SL is not currently in possession of information that would provide clear guidance on the likelihood, aside from general information readily available to the public, that the SWRCB will extend the compliance deadlines for certain units as requested by AES SL.

Request No. 6:

Partial Compliance: If you anticipate that only a portion of one or more of your generation stations will meet its current compliance deadline, for each plant, please state whether the units in compliance will be able to remain profitable and operational.

- c. If your answer is yes, explain how the plant can remain profitable with only partial units available.
- d. On what factors does this profitability depend?

Response to Request No. 6:

As set forth in response to Request No. 1 and further explained in the Plans, the need to sequence development at both AL and HB will most likely require an extension of certain compliance deadlines. AES SL currently anticipates full compliance with the current and extended deadlines as outlined in its Plans.

Request No. 7:

Compliance Progress: Please describe the current progress of your company's compliance plans for each of its generating stations and applicable units.

- a. Are they on track, as described in your company's implementation letters to the SWRCB?
- b. If they are ahead or behind schedule, please describe for each station the extent it is ahead or behind schedule, and why.

Response to Request No. 7:

AES SL is on track to file Applications for Certification with the California Energy Commission (CEC) and Permit to Construct requests with the South Coast Air Quality Management District (SCAQMD) for all three sites in 2012. This timing is generally consistent with the Plans.

Request No. 8:

Changes to Compliance Plan: Is your company planning to submit a revised or updated compliance implementation plan?

- a. If so, what will be the substance of the changes?
- b. When do you plan to submit the revised implementation letter to the SWRCB?

Response to Request No. 8:

As stated in AES SL's Plans, the Plans will be updated as appropriate as AES SL's strategy for development at the three sites is finalized. Currently AES SL contemplates making changes to its Plans to update the development timeline and to reflect the sale of Huntington Beach units 3 and 4. As mentioned in Response to Request No. 7, AES SL is also in the process of preparing Applications for Certification and applications for Permit(s) to Construct for new generation at all three sites, which it intends to file at the CEC and SCAQMD this year. Once finalized and submitted, additional changes to the Plans may be necessary to reflect new and additional information set forth in the Applications. Any revised Plans will likely be submitted after the Applications are filed, but AES SL has no specific timeline for filing revised Plans.

Request No. 9:

Local Capacity Area: In what Local Capacity Area (LCA) subarea(s) are your plants located?

Response to Request No. 9:

AES SL locations are within the Western Los Angeles sub-area of the greater Los Angeles Basin LCA and contribute significantly to meeting both the Los Angeles Basin and Western Los Angeles LCA need. More specifically the individual generator designations are as follows: AL is in the Western Los Angeles sub-area, HB is in Ellis sub-area (which is part of Western Los Angeles) and RB is in the Western Los Angeles sub-area.

Request No. 10:

Huntington Beach

- a. Please describe how permits and/or MWs can be “swapped” between Huntington Beach, Alamitos, and Redondo.
- b. How will the air permits recently sold to Edison Mission Energy from the retirement of Huntington Beach Units 3 and 4 affect this “swapping” and Huntington Beach station’s compliance plans?

Response to Request No. 10:

Air permits and/or MWs can not be swapped between Huntington Beach, Alamitos and Redondo. The South Coast Air Quality Management District Rule 1304 (a) (2) allows the retirement of an applicable generating unit to be replaced megawatt for megawatt with qualifying generating technology, provided the retired and replaced MWs are under common ownership. Under common ownership such replacement generation can be located at a site other than the retirement generation site.

AES SL did not sell air permits to Edison Mission Energy. AES did however sell the actual generating units; units 3 and 4 at HB to Edison Mission Huntington Beach, LLC, a wholly owned subsidiary of Edison Mission Energy. Under common ownership, as mentioned

above, Edison Mission Energy has the right to retire those units which they own at HB and replace them with new units under their ownership at an alternate site.

The sale of these units by AES ultimately reduces the new generation capacity which AES can develop utilizing SCAQMD's Rule 1304.

Request No. 11:

Please produce all documents you have submitted to the SWRCB with regard to compliance with its OTC requirements, and all documents you have received from the SWRCB.

Response to Request No. 11:

Attached are AES SL's original and Updated Plans.

DATED: June 22, 2012

/s/ Seth D. Hilton
Seth D. Hilton
STOEL RIVES LLP
555 Montgomery Street, Suite 1288
San Francisco, CA 94111
Telephone: (415) 617-8913
Email: sdhilton@stoel.com

Attorneys for AES Southland, LLC

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing **CORRECTED RESPONSE TO DIVISION OF RATEPAYER ADOVATES, CALIFORNIA PUBLIC UTILITIES COMMISSION (correction to Response to Request No. 9), Data Request No. DRA-01** by electronic mail and U.S. Mail to the following persons:

Diana Lee
Attorney for DRA
Phone: 415-703-2310
Fax: 415-703-2057
505 Na Ness Avenue
San Francisco, CA 94102
Email: Diana.Lee@cpuc.ca.gov

Karin Hieta
Project Coordinator
Phone: 415-703-4253
Fax: 415-703-2057
505 Na Ness Avenue
San Francisco, CA 94102
Email: kar@cpuc.ca.gov

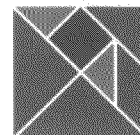
Nika Rogers
Project Coordinator
Phone: 415-703-1529
Fax: 415-703-2057
505 Na Ness Avenue
San Francisco, CA 94102
Email: nlr@cpuc.ca.gov

Any party on the service list who has not provided an electronic mail address was served by placing copies in properly addressed sealed envelopes and depositing such envelopes in the United States Mail with first-class postage prepaid.

Dated June 22, 2012 at San Francisco, California.

/s/ Debbie DeRivero
Debbie DeRivero
Stoel Rives LLP
555 Montgomery St., Ste. 1288
San Francisco, CA 94111
Tel: 415-617-8900
Email: dderivero@stoel.com

Dynergy Inc.
601 Travis Street, Suite 1400
Houston, Texas 77002
Phone 713.507.6400



June 11, 2012

VIA E-mail and U.S. Mail

Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Attention: Karin Hieta, Project Coordinator
Nika Rogers, Project Coordinator
Sarah Thomas, Attorney for DRA

Email: kar@cpuc.ca.gov; nlr@cpuc.ca.gov; srt@cpuc.ca.gov

**RE: Dynergy Response to DRA Data Request No. DRA-01;
R.12-03-014; 2012 Long-Term Procurement Plan**

Dear Mses. Hieta, Rogers and Thomas:

Dynergy Inc., on behalf of Dynergy Moss Landing, LLC and Dynergy Morro Bay, LLC, (collectively, Dynergy) submits the following responses to the above-referenced Division of Ratepayer Advocates (DRA) Data Request dated May 28, 2012.

None of the Dynergy entities is a public utility subject to the Commission's jurisdiction, and none of the Dynergy entities is a party to R.12-03-014. Dynergy does not believe that it has an obligation to respond to DRA's Data Request. In the spirit of cooperation, however, Dynergy voluntarily provides the following information on the topics covered by DRA's Data Request.

As an initial matter, Dynergy respectfully objects to each request in the Data Request to the extent that it seeks confidential business information, commercially and financially sensitive information, and/or information protected from disclosure by the attorney-client privilege, attorney work product doctrine, or any other applicable privilege governing the nondisclosure of such information. Dynergy further objects to each request to the extent it calls for speculation as to future actions currently unknowable and/or contingent on intervening events beyond the control of Dynergy. In addition, Dynergy objects to the continuing nature of DRA's request as the request to supplement answers continuously is indefinite, overly broad, unreasonable and unduly burdensome. Subject to and without waiving these initial objections, Dynergy provides the following responses (the text of each DRA request is restated below prior to our response):

1. **Current Contract:** Are the units in your company's generation stations currently under contract to provide power, capacity, resource adequacy, ancillary services, or other energy-related products?
 - a. If so, please explain for each unit:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units' ability to successfully meet the specified SWRCB's compliance deadline, in whole or part.
 - b. If not (e.g., your company has chosen to place the unit on the spot market, or has been unsuccessful in submitting RFO bid(s)), please explain any facts that impact the timing of the units' compliance with the SWRCB deadline.

Response:

Dynegy respectfully objects to this request to the extent that it seeks confidential business information not subject to disclosure. Dynegy's contracts to provide power, capacity, resource adequacy, ancillary services, or other energy-related products are confidential. Moreover, Dynegy objects to the overbroad scope of the request as it seeks information on current contracts that will not affect the ability of the units to meet the applicable SWRCB compliance deadline.

Subject to and without waiving these objections, Moss Landing currently has various resource adequacy contracts and a power purchase agreement, each of which will expire before the SRWCB's compliance deadline and will not affect the ability of the units to successfully meet the deadline.

None of the units at Morro Bay are currently under contract to provide power, capacity, resource adequacy, ancillary services, or other energy-related products. Instead, Dynegy currently offers Morro Bay's output in the day-ahead market administered by the California Independent System Operator. With respect to timing of Morro Bay's compliance with the SWRCB deadline, as long as the plant is economically viable, Dynegy will continue to operate it. As stated in Morro Bay's implementation plan, if any of the Morro Bay units are not in compliance by the deadline, unless the deadline is suspended or extended, Dynegy Morro Bay, LLC anticipates that it will cease water intake flow to the units by the deadline until either that time as commercially viable control measures capable of meeting the applicable standard, if any, are implemented, or a decision is made to retire the unit(s) (Morro Bay Power Plant Implementation Plan (MBPPIP) at 1).

2. **Future Contracting:** Do you have any contract that extends beyond the compliance deadline or present plans to enter into a long-term contract in the future that would extend the operation of the unit past the compliance deadline?

- a. If so, please explain for each generation station, or individual units if applicable:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units' ability to successfully meet the specified SWRCB compliance deadline, in whole or part.

Response:

Dynegy respectfully objects to DRA's request for information concerning "any contract" as overly broad, unreasonable in scope and unduly burdensome. Subject to and without waiving that objection, neither Moss Landing nor Morro Bay currently have contracts to provide power, capacity, resource adequacy, ancillary services, or other energy-related products (as identified in DRA Request #1) that extend beyond the plant's respective compliance deadline.

Dynegy continues to participate in Request for Offers (RFO) to market resource adequacy, to market all of its units for tolling agreements, and to explore strategies to secure future energy related contracts up to, through and beyond the respective compliance deadline for all of its units. As indicated in the respective implementation plans, securing such contracts is a critical path task for meeting the respective compliance deadlines (MLPPIP at 20; MBPPIP at 16). As an independent merchant generator that is not able to recover its investment costs or costs of operations through a rate base, it is vital that we have some reasonable assurance through forward power purchase agreements, tolls, etc., that investments we make to satisfy environmental or operational requirements are prudent and have some prospect of being recovered through market processes.

3. **Permitting:** From now until the units' SWRCB compliance deadline, are any of your generation stations in the process of, or will any of your generation stations need to go through the process of, renewing or obtaining any permits?
 - a. If so, please explain:
 - i. The permits the station will need to renew or obtain;
 - ii. The estimated amount or range of time it would take to obtain the permits;
 - iii. The likelihood of obtaining such permits.

Response:

We anticipate that between now and the applicable SWRCB compliance deadline, both Moss Landing and Morro Bay will have their respective NPDES permits renewed. As directed by the SWRCB, both Moss Landing and Morro Bay filed new NPDES permit renewal applications on April 1, 2011, along with the station's respective implementation plan. Dynegy has been working with the SWRCB and Regional Water Boards and their consultants in preparation of the

renewal NPDES permits for Moss Landing and Morro Bay and understands that the SWRCB anticipates taking action on those renewal applications in 2013. We expect to obtain the renewal NPDES permits.

As identified in the implementation plans, we anticipate that between now and the applicable SWRCB compliance deadline, Moss Landing and/or Morro Bay may need additional permits to implement final decisions on which control measures will be pursued (Moss Landing Power Plant Implementation Plan (MLPPIP) at 19-20; MBPPIP at 15-16). Given that final decisions on which control measures, if any, to implement have not yet been made, it is uncertain what additional permits would be needed. As identified in the implementation plans, the estimated amount of time it would take to obtain these additional permits is approximately one year (MLPPIP at 19-20; MBPPIP at 15-16). At this time we cannot predict with confidence the likelihood of obtaining such permits.

4. ***Meeting Compliance Deadline:*** Will your company's generation unit(s) be able to fully meet their respective compliance deadlines? Please provide separate answers for each generation plant (or unit, if necessary), and include any major contributing factors - e.g. contracting, permitting, or community opinion - affecting these answers.
- a. If your generation station is in partial or complete non-compliance by the deadline, what are your company's back-up plans?
 - i. Please describe the time frame and likelihood of success for such plans.
 - ii. If you have already stated the backup plan(s) for your units in documents submitted to the SWRCB, please produce these documents and state whether you have changed your plan(s) since submitting an implementation letter to the SWRCB.
 - b. If your company's stations or units are being retired in order to transfer the permits to another station, what is the timeline and likelihood of that station successfully meeting its Commercial Operation Date?

Response:

As indicated in the respective implementation plans, at this time it remains unknown if Moss Landing and Morro Bay will be able to fully meet their respective compliance deadlines. As indicated in the respective implementation plans, the major contributing factors to this uncertainty include, among others, the ability of any combination of control measures to enable the respective stations and/or units to achieve compliance with the standards, the commercial viability of any such combination of control measures, securing power purchase agreements, obtaining SWRCB approval of an amended implementation plan and issuance of any necessary permits by other agencies, the need for CEQA review, and challenges to any necessary approvals/permits (MLPPIP at 16-17, 19-20; MBPPIP at 13, 15-16).

Moss Landing

a. As indicated in the implementation plan, if Units 6 and 7 are not in compliance by the deadline, unless the deadline is suspended or extended, Dynegy Moss Landing, LLC anticipates that it will cease water intake flow to the units by the deadline until either that time as commercially viable control measures capable of meeting the applicable standard, if any, are implemented, or a decision is made to retire the unit(s) (MLPPIP at 1-2). Our plan in this respect has not changed since submittal of the implementation plan.

In regards to Moss Landing Units 1 and 2, we continue to examine and research compliance options under in the SWRCB's OTC Policy in parallel with efforts to secure long-term contracts for the facility. We have not yet developed any firm contingency plans in the event we are unable to achieve compliance by the current deadline.

b. Not applicable; neither the station nor any of its units are being retired in order to transfer the permits to another station.

Morro Bay

a. As indicated in the implementation plan, if Morro Bay is not in compliance by the deadline, unless the deadline is suspended or extended, Dynegy Morro Bay, LLC anticipates that it will cease water intake flow to the units by the deadline until either that time as commercially viable control measures capable of meeting the applicable standard, if any, are implemented, or a decision is made to retire the unit(s) (MBPPIP at 1). Our plan in this respect has not changed since submittal of the implementation plan.

b. Not applicable; neither the station nor any of its units are being retired in order to transfer the permits to another station.

5. ***Compliance Deadline Extension:*** If applicable, do you have any information from which you can predict the likelihood that that your company's generation stations will obtain the extended compliance deadline requested in their respective implementation letters to the SWRCB?

Response:

Morro Bay and Moss Landing Units 6 and 7: Not applicable.

Moss Landing Units 1 and 2: Given the longest extended compliance deadline that the SWRCB granted to LADWP (*i.e.*, December 31, 2029) and based on initial indications from the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS), an extension of the compliance deadline for Moss Landing Units 1 and 2 through December 31, 2032, as requested in Dynegy Moss Landing, LLC's implementation plan, may not be obtainable. The SACCWIS stated in its June 5, 2012 presentation to the SWRCB that, "SACCWIS believes that the Moss Landing situation bears watching and specific recommendations to revise [its compliance deadline] dates may be forthcoming in the March 2013 SACCWIS report."

6. **Partial Compliance:** If you anticipate that only a portion of one or more of your generation stations will meet its current compliance deadline, for each plant, please state whether the units in compliance will be able to remain profitable and operational.
- If your answer is yes, explain how the plant can remain profitable with only partial units available.
 - On what factors does this profitability depend?

Response:

a. At this time, we do not anticipate that only a portion of either Moss Landing or Morro Bay will meet its current compliance deadline.

As stated in Dynegy Moss Landing LLC's implementation plan, if Units 6 and/or 7 are not in compliance by the deadline, unless the deadline is suspended or extended, Dynegy Moss Landing, LLC anticipates that it will cease water intake flow to the units by the deadline until either that time as commercially viable control measures capable of meeting the applicable standard, if any, are implemented, or a decision is made to retire the unit(s) (MLPPIP at 1-2). In regards to Moss Landing Units 1 and 2, we continue to examine and research compliance options under in the SWRCB's OTC Policy in parallel with efforts to secure long-term contracts for the facility. We have not yet developed any firm contingency plans in the event we are unable to achieve compliance by the current deadline. We would not expect that the status of Units 6 and 7 would affect the profitability and operational status of Units 1 and 2.

b. As identified in the respective implementation plans, whether only part of either station will meet its compliance deadline and whether the unit(s) that meet its compliance deadline will be able to remain profitable and operational depends on, among other things, the availability of commercially viable control measures that can achieve compliance, securing power purchase agreements in the future, and marketability of the units (MLPPIP at 16-17, 19-20; MBPPIP at 13, 15-16).

7. **Compliance Progress:** Please describe the current progress of your company's compliance plans for each of its generating stations and applicable units.
- Are they on track, as described in your company's implementation letters to the SWRCB?
 - If they are ahead or behind schedule, please describe for each station the extent it is ahead or behind schedule, and why.

Response:

Dynegy continues to move forward with the first phase of its implementation plans as described therein (MLPPIP at 16-18; MBPPIP at 13-15). Dynegy is currently pursuing evaluation of wedgewire screening technology for Moss Landing and Morro Bay. That evaluation may be performed with other generators as part of a working group or, alternatively, by Dynegy at the Moss Landing site or Morro Bay site, contingent on receiving permission from

the SWRCB to test under conditions not involving generation so as not to threaten the capacity of the on-line unit(s).

- a. The implementation plans for both Moss Landing and Morro Bay are currently on track as identified in the respective implementation plans (MLPPIP at 19-20; MBPPIP at 15-16).
- b. Not applicable.

8. ***Changes to Compliance Plan:*** Is your company planning to submit a revised or updated compliance implementation plan?
- a. If so, what will be the substance of the changes?
 - b. When do you plan to submit the revised implementation letter to the SWRCB?

Response:

As indicated in the respective implementation plans, Dynegy Moss Landing, LLC and Dynegy Morro Bay, LLC expect to submit amended implementation plans (MLPPIP at 16-17, 19; MBPPIP at 13-15). In the event Moss Landing Units 1 and 2 do not obtain an extension of the compliance deadline, Dynegy Moss Landing, LLC would, as necessary and appropriate, submit an amended implementation plan addressing Units 1 and 2.

- a. As indicated in the respective implementation plans, the amended implementation plan will identify the final decision made regarding which control measure(s) will be pursued and provide a revised implementation schedule (MLPPIP at 16-17, 19; MBPPIP at 13, 15).
- b. As indicated in the respective implementation plans, Dynegy Moss Landing, LLC expects to submit an amended implementation plan addressing Units 6 and 7 in spring 2015 (MLPPIP at 19) and Dynegy Morro Bay, LLC expects to submit an amended implementation plan in early 2014 (MBPPIP at 15).

9. ***Local Capacity Area:***

- a. What, if any, LCA do your generation stations serve?
- b. What Local Capacity Area (LCA) subarea(s) are your plants located in?

Response:

Dynegy respectfully objects to the requested information as vague, ambiguous and too indefinite to be capable of reasonable interpretation. Based on information from the California Independent System Operator (CAISO), we understand that the CAISO and the Commission do not use the same LCAs. In addition, it is unclear what DRA means by "serve". Subject to and without waiving this objection:

- a. According to the CAISO, Moss Landing and Morro Bay are not part of an LCA, but they can provide system Resource Adequacy (RA).

b. According to the CAISO, neither Moss Landing nor Morro Bay is located in an LCA subarea.

10. Please produce all documents you have submitted to the SWRCB with regard to compliance with its OTC requirements, and all documents you have received from the SWRCB.

Response:

Dynegy respectfully objects to DRA's request for "all documents ... received from the SWRCB" as overly broad, unreasonable in scope and unduly burdensome. Without waiving that objection, all documents Dynegy has submitted to the SWRCB regarding compliance with the SWRCB's OTC requirements at Morro Bay or Moss Landing since adoption of the OTC Policy and all documents regarding compliance with the SWRCB's OTC requirements at Morro Bay or Moss Landing that we have received from the SWRCB since adoption of the OTC Policy are, as follows:

- A. SWRCB Letter, Thomas Howard, Executive Director, to Daniel Thompson, Moss Landing Power Plant (Nov. 30, 2010)
- B. SWRCB Letter, Thomas Howard, Executive Director, to Daniel Thompson, Morro Bay Power Plant (Nov. 30, 2010)
- C. SWRCB Letter, Marleigh J. Wood, Senior Staff Counsel, to Mark Krausse, et al. (March 1, 2011)
- D. Dynegy Inc. Letter, Daniel P. Thompson, Vice President of Operations, to Philip Isorena, Chief of the NPDES Unit, SWRCB, Re: Moss Landing Power Plant; Implementation Plan for the Once-Through Cooling Water Policy (March 31, 2011), transmitting Dynegy Moss Landing, LLC Implementation Plan for the Moss Landing Power Plant (April 1, 2011), including Report of Waste Discharge
- E. Dynegy Inc. Letter, Daniel P. Thompson, Vice President of Operations, to Philip Isorena, Chief of the NPDES Unit, SWRCB, Re: Morro Bay Power Plant; Implementation Plan for the Once-Through Cooling Water Policy (March 31, 2011), transmitting Dynegy Morro Bay, LLC Implementation Plan for the Morro Bay Power Plant (April 1, 2011), including Report of Waste Discharge

Each of the documents listed in A-E above is publicly available at the SWRCB's web site. Specifically, the Moss Landing documents are available at:

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/moss_landing/. The Morro Bay documents are available at:

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/morro_bay/.

Because each of these documents is readily available to the DRA from the SWRCB's web site in a readable, downloadable, printable and searchable format, and due to the length of certain of these documents, an electronic and hard copy of these documents is not enclosed with this response.

* * * * *

If you have any questions regarding the above responses, please contact Barb Irwin, Director Environmental (217-519-4035), or me (713-767-0396).

Sincerely,



Andreas H. Leskovsek
Sr. Corporate Counsel

cc: Barb Irwin
Brian T. Cragg, Goodin, MacBride, Squeri, Day & Lamprey

WINSTON & STRAWN LLP

BEIJING
CHARLOTTE
CHICAGO
GENEVA
HONG KONG
HOUSTON
LONDON
LOS ANGELES

101 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

+1 (415) 591-1000

FACSIMILE +1 (415) 591-1400

www.winston.com

MOSCOW
NEW YORK
NEWARK
PARIS
SAN FRANCISCO
SHANGHAI
WASHINGTON, D.C.

June 11, 2012

VIA US MAIL AND ELECTRONIC MAIL

Karin Hieta
Project Coordinator
kar@cpuc.ca.gov

Nika Rogers
Project Coordinator
nlr@cpuc.ca.gov

Sarah Thomas
Attorney for DRA
srt@cpuc.ca.gov

Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Karin, Nika and Sarah:

Enclosed is the response of GenOn Energy, Inc. to the First Set of Data Requests of the Division of Ratepayer Advocates.

Please do not hesitate to contact me should you have any questions.

Sincerely,



Lisa A. Cottle

Enclosure

cc: Sean Beatty, GenOn Energy, Inc.

LISA A. COTTLE
Partner
415.591.1579
lcottle@winston.com

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.

Rulemaking 12-03-014
(Filed March 22, 2012)

**RESPONSE OF GENON ENERGY, INC. TO THE FIRST SET OF DATA REQUESTS
OF THE DIVISION OF RATEPAYER ADVOCATES**

Below are responses by GenOn Energy, Inc. (“GenOn”) to the first set of data requests of the Division of Ratepayer Advocates (“DRA”). These responses are dated June 11, 2012.

GENERAL OBJECTIONS

GenOn makes the following general objections (“General Objections”) whether or not separately set forth in response to each and every data request.

1. GenOn objects to each data request to the extent that it seeks disclosure of information containing privileged communications or attorneys’ work product on the ground that such discovery is not permissible under the California Evidence Code. The inadvertent disclosure of such information is not intended to be a waiver of any privilege or protection and shall not be deemed a waiver of any privilege or protection.
2. GenOn objects to each data request to the extent that it seeks disclosure of information containing privileged trade secret information that is protected from disclosure under the California Evidence Code. The inadvertent disclosure of such information is not intended to be a waiver of any privilege or protection and shall not be deemed a waiver of any privilege or protection.
3. GenOn objects to these data requests to the extent they require GenOn to obtain information from or with respect to persons or entities over which it has no control.
4. GenOn’s responses are made without any waiver of GenOn’s right to discuss in hearings all questions of relevancy, materiality, privilege, or admissibility as evidence for any purpose as to any information or documents provided in any of the responses.
5. GenOn’s responses are made without any waiver of GenOn’s right to object on any and all grounds to the use in any other proceeding of information or documents provided in any of the responses.
6. GenOn’s responses are made without any waiver of GenOn’s right to object at hearing on any and all grounds to the introduction into evidence of any response or any documents identified or produced in response to DRA’s data requests.

The foregoing General Objections are incorporated by reference into each of GenOn’s specific responses to DRA’s Data Requests 1 through 10 below.

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 1

Current Contract: Are the units in your company’s generation stations currently under contract to provide power, capacity, resource adequacy, ancillary services, or other energy-related products?

- a. If so, please explain for each unit:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units’ ability to successfully meet the specified SWRCB’s compliance deadline, in whole or part.
- b. If not (e.g., your company has chosen to place the unit on the spot market, or has been unsuccessful in submitting RFO bid(s)), please explain any facts that impact the timing of the units’ compliance with the SWRCB deadline.

GenOn Objections to DRA Data Request No. 1

GenOn objects to DRA Data Request No. 1(a)(iii) on the ground that it is overly broad and unreasonably vague, ambiguous, and unintelligible as to the phrase “[a]ny other details relevant to the duration of the contract,” requiring GenOn to speculate as to the response sought. In addition, GenOn objects to DRA Data Request No. 1(a)(iv) on the ground that this request calls for a legal analysis, and the information that is sought is protected pursuant to the attorney/client and attorneys’ work product privilege. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 1 (a)

Many of the units at GenOn’s generating stations in California that utilize once-through cooling (“OTC”) technology are currently under contract for various products and terms. For each unit, the following responses provide information requested in DRA Data Request No. 1(a).

Contra Costa Generating Station (“CCGS”) Units 6 and 7:

- (i) CCGS Units 6 and 7 are committed under a tolling agreement, the terms and conditions of which are confidential. The Commission approved the tolling agreement in Decision 10-07-045.
- (ii) The tolling agreement is described on page 36 of Decision 10-07-045 as “a tolling agreement for the 674 MW output from units 6 & 7 running from November 1, 2011, through April 30, 2013, when the Marsh Landing Project is scheduled to come on-line.”
- (iii) See response to (ii), above.
- (iv) See response to (ii), above.

Mandalay Generating Station (“MGS”) Units 1 and 2:

- (i) MGS Units 1 and 2 are committed under a series of resource adequacy capacity agreements, the terms and conditions of which are confidential.
- (ii) The resource adequacy agreements are scheduled to terminate more than one year before the SWRCB’s OTC compliance date for the MGS.
- (iii) See response to (ii), above.
- (iv) The agreements do not affect MGS’s ability to meet the SWRCB’s OTC compliance date for the MGS.

Ormond Beach Generating Station (“OBGS”) Units 1 and 2:

- (i) OBGS Unit 1 and 2 are committed under a series of resource adequacy capacity agreements, the terms and conditions of which are confidential.
- (ii) The resource adequacy agreements are scheduled to terminate more than one year before the SWRCB’s OTC compliance date for the OBGS.
- (iii) See response to (ii), above.
- (iv) The agreements do not affect OBGS’s ability to meet the SWRCB’s OTC compliance date for the OBGS.

Pittsburg Generating Station (“PGS”) Units 5 and 6:¹

- (i) PGS Units 5 and 6 are committed under a tolling agreement, the terms and conditions of which are confidential.
- (ii) The tolling agreement is scheduled to terminate more than one year before the SWRCB’s OTC compliance date for PGS Units 5 and 6.
- (iii) See response to (ii), above.
- (iv) The agreement does not affect PGS’s ability to meet the SWRCB’s OTC compliance date for PGS Units 5 and 6.

GenOn Response to DRA Data Request No. 1 (b)

Not applicable.

Person responding to DRA Data Request No. 1:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

¹ Note that PGS Unit 7 does not utilize OTC technology.

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 2

Future Contracting: Do you have any contract that extends beyond the compliance deadline or present plans to enter into a long-term contract in the future that would extend the operation of the unit past the compliance deadline?

- a. If so, please explain for each generation station, or individual units if applicable:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units’ ability to successfully meet the specified SWRCB compliance deadline, in whole or part.

GenOn Response to DRA Data Request No. 2

No; therefore, GenOn’s response to DRA Data Request No. 2(a) is “not applicable.”

Person responding to DRA Data Request No. 2:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 3

Permitting: From now until the units’ SWRCB compliance deadline, are any of your generation stations in the process of, or will any of your generation stations need to go through the process of, renewing or obtaining any permits?

- a. If so, please explain:
 - i. The permits the station will need to renew or obtain;
 - ii. The estimated amount or range of time it would take to obtain the permits;
 - iii. The likelihood of obtaining such permits.

GenOn Objections to DRA Data Request No. 3

GenOn objects to DRA Data Request No. 3(a)(i) on the ground that the burden, expense, and intrusiveness of conclusively identifying every permit that may pertain to the operation of units at GenOn’s generating stations utilizing once-through cooling (“OTC”) technology clearly outweighs the likelihood that the information sought will lead to the discovery of admissible evidence. (See Rule 10.1 of the Commission’s Rules of Practice and Procedure.) In addition, GenOn objects to DRA Data Request No. 3(a)(iii) on the ground that this request calls for a legal analysis, and the information that is sought is protected pursuant to the attorney/client and attorneys’ work product privilege. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 3

Between now and the applicable SWRCB OTC compliance dates, GenOn will need to renew or obtain certain permits and authorizations applicable to its generating units in California that utilize OTC technology. For each unit, the following provides information requested in DRA Data Request No. 3(a).

Contra Costa Generating Station (“CCGS”) Units 6 and 7:

- (i) GenOn is in the process of renewing authorizations for incidental take of listed species under (a) the Federal Endangered Species Act (“ESA”) and (b) the California Endangered Species Act (“CESA”). These authorizations are being issued jointly for the CCGS and the Pittsburg Generating Station (see below).
- (ii) The ESA and CESA authorization renewals are under agency review and are not expected to impact CCGS’s ability to comply with the SWRCB’s OTC compliance date.
- (iii) GenOn expects to receive the identified authorizations.

Mandalay Generating Station (“MGS”) Units 1 and 2:

- (i) GenOn will need to renew the following permits for MGS Units 1 and 2 prior to the SWRCB OTC compliance date for MGS: (a) Title IV air permit; (b) Title V air permit; and (c) National Pollutant Discharge Elimination System (“NPDES”) permit.

- (ii) GenOn will submit renewal applications for the Title IV air permit on or around June 30, 2012 and June 30, 2016; GenOn expects that it will take several months to process the Title IV air permit renewal. GenOn will submit renewal applications for its Title V air permit on or around March 30, 2013 and March 30, 2018; GenOn expects that it will take approximately six months to process the Title V air permit renewal. MGS's NPDES permit is currently administratively extended, and MGS will operate under its current permit until the SWRCB issues a renewed permit. GenOn has submitted and will continue to submit renewal applications for MGS as required by SWRCB regulations. GenOn expects that the SWRCB will issue renewed permits prior to the OTC compliance date for the MGS, which is December 31, 2020.
- (iii) GenOn expects to receive the identified permits.

Ormond Beach Generating Station ("OBGS") Units 1 and 2:

- (i) GenOn will need to renew the following permits for OBGS Units 1 and 2 prior to the SWRCB's OTC compliance date for OBGS: (a) Title IV air permit, (b) Title V air permit, and (c) NPDES permit.
- (ii) GenOn will submit renewal applications for the Title IV air permit on or around June 30, 2012 and June 30, 2016; GenOn expects that it will take several months to process the Title IV air permit renewal. GenOn will submit renewal applications for the Title V air permit on or around March 30, 2013 and March 30, 2018; GenOn expects that it will take approximately six months to process the Title V air permit renewal. OBGS's NPDES permit is currently administratively extended, and OBGS will operate under its current permit until the SWRCB issues a renewed permit. OBGS has submitted and will continue to submit renewal applications as required by SWRCB regulations. GenOn expects that the SWRCB will issue renewed permits prior to the SWRCB's OTC compliance date for the OBGS, which is December 31, 2020.
- (iii) GenOn expects to receive the identified permits.

Pittsburg Generating Station ("PGS") Units 5 and 6:

- (i) GenOn will need to renew the following permits for PGS Units 5 and 6 prior to the SWRCB's OTC compliance date for PGS Units 5 and 6: (a) Title IV air permit; (b) Title V air permit; (c) NPDES permit, (d) ESA incidental take authorization; (e) CESA Incidental Take Permit; and (f) submerged tidelands lease.
- (ii) The Bay Area Air Quality Management District processes the Title IV and Title V air permits together. GenOn expects to receive renewals of these permits for PGS on or around July 1, 2012. That permit will expire on or around July 1, 2017, and GenOn will file for renewal between six months and one year prior to the expiration. GenOn has applied for renewal of the NPDES permit for PGS. GenOn expects that the NPDES permit will issue in 2012. Pending issuance of a renewed permit, PGS is operating under its current NPDES permit which is administratively extended. The ESA and CESA authorization renewals are under agency review and are not expected to impact PGS's ability to comply with the SWRCB's OTC compliance date. The current submerged tidelands lease expires

in June 2015 and GenOn intends to file a timely renewal request with the City of Pittsburg (the state lands trustee) in 2014.

- (iii) GenOn expects to receive the identified permits and authorizations.

Person responding to DRA Data Request No. 3:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. ("GenOn") to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 4

Meeting Compliance Deadline: Will your company's generation unit(s) be able to fully meet their respective compliance deadlines? Please provide separate answers for each generation plant (or unit, if necessary), and include any major contributing factors - e.g. contracting, permitting, or community opinion - affecting these answers.

- a. If your generation station is in partial or complete non-compliance by the deadline, what are your company's back-up plans?
 - i. Please describe the time frame and likelihood of success for such plans.
 - ii. If you have already stated the backup plan(s) for your units in documents submitted to the SWRCB, please produce these documents and state whether you have changed your plan(s) since submitting an implementation letter to the SWRCB.
- b. If your company's stations or units are being retired in order to transfer the permits to another station, what is the timeline and likelihood of that station successfully meeting its Commercial Operation Date?

GenOn Objections to DRA Data Request No. 4

GenOn objects to DRA Data Request No. 4 on the ground that this request calls for a legal analysis, and the information that is sought is protected pursuant to the attorney/client and attorneys' work product privilege. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 4:

GenOn expects to meet the SWRCB's once-through cooling ("OTC") compliance date for each of its units in California that utilize OTC technology. As stated in response to DRA Data Request No. 4, Contra Costa Generating Station Units 6 and 7 are expected to retire when the Marsh Landing Generating Station becomes operational in 2013. (*See* Decision 10-07-045, as noted above.) GenOn has proposed a conversion project for Pittsburg Generating Station ("PGS") Units 5 and 6 that would take several years to complete. GenOn intends to modify its implementation plans for Mandalay Generating Station ("MGS") and Ormond Beach Generating Station ("OBGS") to reflect a retire and replace approach to compliance. GenOn estimates the development timeline for new generation to be between seven and nine years. Each of the PGS, MGS and OBGS compliance paths depends upon receiving a contract that would fund the capital cost of these projects.

GenOn Response to DRA Data Request No. 4 (a):

Not applicable.

GenOn Response to DRA Data Request No. 4 (b):

Not applicable.

Person responding to DRA Data Request No. 4:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 5

Compliance Deadline Extension: If applicable, do you have any information from which you can predict the likelihood that that your company’s generation stations will obtain the extended compliance deadline requested in their respective implementation letters to the SWRCB?

GenOn Response to DRA Data Request No. 5

GenOn has not sought extension of SWRCB’s once-through cooling (“OTC”) technology compliance dates for any of its units in California that utilize OTC technology.

Person responding to DRA Data Request No. 5:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 6

1. ***Partial Compliance:*** If you anticipate that only a portion of one or more of your generation stations will meet its current compliance deadline, for each plant, please state whether the units in compliance will be able to remain profitable and operational.
 - a. If your answer is yes, explain how the plant can remain profitable with only partial units available.
 - b. On what factors does this profitability depend?

GenOn Response to DRA Data Request No. 6

GenOn has not proposed partial compliance with the SWRCB’s once-through cooling (“OTC”) technology compliance dates for any of its units in California that utilize OTC technology.

GenOn Response to DRA Data Request No. 6 (a):

Not applicable.

GenOn Response to DRA Data Request No. 6 (b):

Not applicable.

Person responding to DRA Data Request No. 6:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 7

Compliance Progress: Please describe the current progress of your company’s compliance plans for each of its generating stations and applicable units.

- a. Are they on track, as described in your company’s implementation letters to the SWRCB?
- b. If they are ahead or behind schedule, please describe for each station the extent it is ahead or behind schedule, and why.

GenOn Objections to DRA Data Request No. 7

GenOn objects to DRA Data Request No. 7 on the ground that this request calls for a legal analysis, and the information that is sought is protected pursuant to the attorney/client and attorneys’ work product privilege. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 7

Adequate time remains within the compliance period for each of GenOn’s units in California that utilize once-through cooling technology to complete the anticipated compliance paths.

Person responding to DRA Data Request No. 7:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 8

Changes to Compliance Plan: Is your company planning to submit a revised or updated compliance implementation plan?

- a. If so, what will be the substance of the changes?
- b. When do you plan to submit the revised implementation letter to the SWRCB?

GenOn Objections to DRA Data Request No. 8

GenOn objects to DRA Data Request No. 8 on the ground that this request calls for a legal analysis, and the information that is sought is protected pursuant to the attorney/client and attorneys’ work product privilege. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 8

GenOn intends to submit revised implementation plans for Mandalay Generating Station (“MGS”) and Ormond Beach Generating Station (“OBGS”). The original implementation plans submitted for MGS and OBGS identified Track 2 as the compliance path. GenOn intends to revise these implementation plans to focus on a retire and replace approach to compliance with the SWRCB’s regulations applicable to generating units utilizing once-through cooling technology. GenOn intends to submit the revisions later this year.

Person responding to DRA Data Request No. 8:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 9

Local Capacity Area: In what Local Capacity Area (LCA) subarea(s) are your plants located?

GenOn Response to DRA Data Request No. 9

GenOn’s generating stations in California that having units utilizing once-through cooling technology are located in the following LCAs and LCA subareas:

Contra Costa Generating Station: Greater Bay Area (not within a designated subarea)

Mandalay Generating Station: Big Creek/Ventura (Moorpark subarea)

Ormond Beach Generating Station: Big Creek/Ventura (Moorpark subarea)

Pittsburg Generating Station: Greater Bay Area (Pittsburg subarea)

Person responding to DRA Data Request No. 9:

Sean Beatty

Director, West Regulatory Affairs & Associate General Counsel

GenOn Energy, Inc.

(925) 427-3483

sean.beatty@genon.com

**Response of GenOn Energy, Inc. (“GenOn”) to the
First Set of Data Requests of the Division of Ratepayer Advocates
(June 11, 2012)**

DRA Data Request No. 10

Please produce all documents you have submitted to the SWRCB with regard to compliance with its OTC requirements, and all documents you have received from the SWRCB.

GenOn Objections to DRA Data Request No. 10

GenOn objects to DRA Data Request No. 10 on the ground that it is overly broad, burdensome, oppressive and unnecessary in that it seeks information that is publicly available. Subject to and without waiving the foregoing objections, GenOn responds as follows.

GenOn Response to DRA Data Request No. 10

The implementation plans for GenOn’s generating units in California that utilize once-through cooling technology can be viewed at the following links:

Contra Costa Generating Station:

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/contra_costa/docs/c_c_ip2011.pdf.

Mandalay Generating Station (“MGS”):

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/mandalay/docs/mgs_ip2011.pdf.

Ormond Beach Generating Station (“OBGS”):

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/ormond_beach/docs/ob_ip2011.pdf.

Pittsburg Generating Station:

http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/powerplants/pittsburg/docs/pitt_ip2011.pdf.

In addition, attached as Exhibit 1 are copies of letters exchanged between GenOn and the SWRCB addressing the implementation plans for MGS and OBGS.

Person responding to DRA Data Request No. 10:

Sean Beatty
Director, West Regulatory Affairs & Associate General Counsel
GenOn Energy, Inc.
(925) 427-3483
sean.beatty@genon.com

Exhibit 1

(see attached pages)



GenOn West, LP
696 West 10th Street, P.O. Box 192, Pittsburg, CA 94565
T 925 427 3560 F 925 427 3518 U www.genon.com

May 14, 2012

Mr. Jonathan Bishop
State Water Resources Control Board
Division of Water Quality
1001 I Street, 15th Floor
Sacramento, CA 95814

Re: GenOn West, LP Ormond Beach Generating Station & Mandalay Generating Station
Implementation Plans for the Statewide Water Quality Control Policy on the Use of
Coastal and Estuarine Waters for Power Plant Cooling (Policy)

Dear Mr. Bishop,

GenOn West, LP (GenOn) submits this letter to provide the State Water Resources Control Board (Board) an update regarding the Implementation Plans for its Ormond Beach Generating Station (OBGS) and Mandalay Generating Station (MGS).

In the OBGS and MGS Implementation Plans submitted on April 1, 2011, GenOn demonstrated that it would be infeasible to retrofit the existing units to use closed-cycle cooling and thereby comply under Track 1 of the Board's Policy. Accordingly, GenOn proposed to comply with the Policy by achieving the impact reductions required under Track 2 of the Policy by implementing a combination of technological and operational controls. However, the ultimate viability of Track 2 implementation at both OBGS and MGS is subject to numerous technical, environmental, political and economic uncertainties. Also, there is a significant risk that the contemplated Track 2 compliance measures could either not be implemented or would fail to achieve the requisite reductions, in which case the units would be forced to shut down. Furthermore, since Track 2 requires a three-year baseline monitoring study, GenOn would not be able to better gauge the viability of Track 2 implementation measures and handicap that risk for at least three more years.

Additionally, the California Independent System Operator (CAISO) recently determined that, of the existing OTC megawatts in the Big Creek/Ventura Local Reliability Area, in which MGS and OBGS are located, 430 megawatts are required to meet local reliability needs beyond 2020. To ensure that need can be met, and in light of the Track 2 uncertainties highlighted above, GenOn intends to amend its Implementation Plans for OBGS and MGS to propose to replace the once-through cooled units at OBGS and MGS with new units that are not dependent on once-through cooling. The replacements of the once-through cooled units at OBGS and MGS are subject to their own uncertainties, e.g., a need determination by the California Public Utilities Commission and the awarding of a power purchase agreement from the utility, and obtaining licenses from the California Energy Commission and air permits from the Ventura County Air Pollution Control District, but the replacement compliance path more completely furthers the Board's objective to minimize the impacts of once-through cooling and will result in generating units more capable of meeting the CAISO's need for flexible capacity to integrate renewable resources coming on-line in

Mr. Jonathan Bishop
May 14, 2012
Page 2 of 2

the next decade. Due to the lengthy procurement, permitting and construction cycle facing new generation development in California, Genon is revising its Implementation Plans now to ensure that we can complete the replacement path by 2020.

GenOn will follow up on this letter with a formal revision of the Implementation Plans describing the proposed replacement units in more detail. In the interim, we would appreciate the Board's acknowledgement of this letter and its endorsement for GenOn to proceed in the direction outlined herein.

Sincerely,

A handwritten signature in cursive script, appearing to read "John Chillemi".

John Chillemi
President

cc: Michael Lauffer, SWRCB



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

May 18, 2012

John Chillemi
GenOn West, LP
P.O. Box 192
Pittsburg, CA 94565

Dear Mr. Chillemi:

GENON WEST, LP ORMOND BEACH GENERATING STATION AND MANDALAY GENERATING STATION IMPLEMENTATION PLANS FOR THE STATEWIDE WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING (OTC POLICY)

Thank you for your letter of May 14, 2012, informing the State Water Resources Control Board (State Water Board) of GenOn West, LP's (GenOn's) intention to amend its OTC Policy implementation plans for the Ormond Beach Generating Station (OBGS) and Mandalay Generating Station (MGS). According to your May 14 letter, GenOn intends to rely on a replacement strategy that will eliminate the use of once-through cooling water intakes at the OBGS and MGS facilities.

By April 1, 2011, the OTC Policy required owners or operators of existing power plants to submit implementation plans identifying how they intended to comply with the policy. The OTC Policy provides two compliance tracks. The preferred track, Track 1, requires an intake flow rate reduction commensurate with or greater than that which can be attained through closed-cycle wet cooling. If an owner or operator of an existing plant demonstrates to the satisfaction of the State Water Board that compliance with Track 1 is not feasible, then it may pursue Track 2. Track 2 requires a reduction in impingement mortality and entrainment to a level comparable with Track 1. Track 2 requires extensive study, as well as operational or structural controls, and involves greater uncertainty because modeled impingement and entrainment reductions, and therefore compliance, cannot be verified until near the end of the implementation timeline. In contrast, retrofitting to a new cooling technology under Track 1 provides certainty.

Subject to receiving additional details regarding the replacement strategy, the State Water Board staff supports GenOn's intended amendment of its implementation plans for OBGS and MGS. GenOn's proposed replacement of the once-through cooled units at the two facilities is consistent with the OTC Policy. Further, the elimination of once-through cooled units, which is what the amended implementation plans would achieve, is the preferred approach to achieving the intent of the OTC Policy. The replacement of the once-through cooled units better protects the beneficial uses of the State's coastal and estuarine waters. Finally, staff shares GenOn's

CHARLES R. HOPPIN, CHAIRMAN | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

SB_GT&S_0578460

Mr. John Chillemi

- 2 -

May 18, 2012

concerns regarding the uncertainty of the Track 2 compliance measures described in GenOn's original implementation plans. The amendment proposed in GenOn's May 14 letter will avoid waiting three years as study data are gathered to determine the compliance path that GenOn will follow.

We look forward to receiving GenOn's amended implementation plans.

Sincerely,



for
Jonathan Bishop
Chief Deputy

cc: Peter Landreth
GenOn West, LP
P.O. Box 192
Pittsburg, CA 94565

SB_GT&S_0578461

CERTIFICATE OF SERVICE

I hereby certify that I have on this date served a true copy of “**RESPONSE OF GENON ENERGY, INC. TO THE FIRST SET OF DATA REQUESTS OF THE DIVISION OF RATEPAYER ADVOCATES**” in **R.12-03-014** via U.S. mail and electronic mail, to:

Karin Hieta
Project Coordinator
Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
kar@cpuc.ca.gov

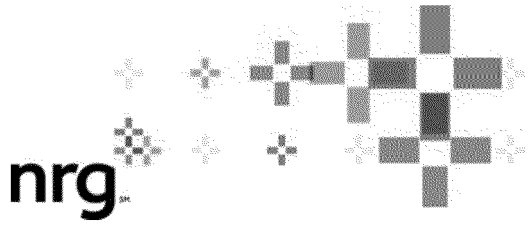
Nika Rogers
Project Coordinator
Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
nlr@cpuc.ca.gov

Sarah Thomas
Attorney for DRA
Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
srt@cpuc.ca.gov

Dated June 11, 2012 at San Francisco, California.

/s/ SALLIE LOPES

Sallie Lopes



NRG Energy, Inc.
5790 Fleet Street
Suite 200
Carlsbad, CA 92008-4703

June 12, 2012

Ms. Karin Hieta
Ms. Nika Rogers
Project Coordinator
Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Subject: R.12-03-014: NRG Energy, Inc. 2012 Long-Term Procurement Plan

Dear Ms. Hieta and Ms. Rogers:

Attached are responses to Data Requests submitted to NRG Energy, Inc. (“NRG”) dated May 25, 2012 by the Division of Ratepayer Advocates (“DRA”) in reference to the 2012 Long-Term Procurement Plan. These written responses are provided pursuant to the above-referenced proceeding, R.12-03-014. The twelve DRA Data Requests and the corresponding NRG responses are provided below, subject to the specific objections raised below:

General Objections:

- (1) NRG objects to the data requests to the extent that they call for the production of data that are not relevant to, or is outside the scope of, this proceeding, or that are not reasonably calculated to lead to the discovery of admissible evidence.
- (2) NRG objects to the data requests to the extent they are overbroad and would impose an undue burden and expense on NRG.
- (3) NRG objects to the data requests to the extent the answer would require NRG to reveal proprietary or confidential information and/or trade secrets, the disclosure of which would be prejudicial to NRG. Any disclosure of such information does not waive any claims of confidentiality that NRG may have.
- (4) NRG objects to the data requests to the extent the answers would require NRG to disclose information or documents protected by the Attorney-Client privilege, the

Attorney Work-Product doctrine, or documents prepared in anticipation of litigation or are otherwise protected from disclosure under relevant law.

- (5) NRG objects to the data requests to the extent they call for speculation.
- (6) NRG objects to the data requests to the extent that they would require NRG to perform studies, analyses or calculations or otherwise create documents that do not currently exist and present grounds for limiting discovery.

Objections to Instructions and Definitions:

- (1) NRG objects to the “Instructions” and “Definitions” accompanying the data requests to the extent that those instructions and definitions are inconsistent with or require NRG to do anything not required by law.

Express Reservations:

- (1) No objection or limitation, or lack thereof, set forth in these objections shall be deemed an admission by NRG as to the existence or nonexistence of documents or information.
- (2) NRG reserves the right to modify and supplement its objections to each request, and the production of any documents or information pursuant to any of the data requests is not a waiver of that right.

Notwithstanding the above objections, responses to the twelve Data Requests have been prepared by George Piantka, Environmental Director for NRG’s West Region. Contact information for Mr. Piantka is provided below.

1. **Current Contract:** Are the units in your company’s generation stations currently under contract to provide power, capacity, resource adequacy, ancillary services, or other energy-related products?
 - a. If so, please explain for each unit:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units’ ability to successfully meet the specified SWRCB’s compliance deadline, in whole or part.

- b. If not (e.g., your company has chosen to place the unit on the spot market, or has been unsuccessful in submitting RFO bid(s)), please explain any facts that impact the timing of the units' compliance with the SWRCB deadline.

None of NRG's existing once-through cooled units currently have long-term contracts that extend beyond the compliance deadline.

Both Encina and El Segundo are subject to short-term resource adequacy contracts and are "merchant" in the ancillary services and energy markets. While I am not directly involved in the marketing of long-term contracts, as NRG explores all commercial opportunities for maximizing the value of these units, it is possible that such opportunities could include contracts that may extend past the units' compliance deadlines.

None of these contracts have an effect on the CA 316(b) Once-Through Cooling Policy ("316(b) Policy") compliance deadlines.

2. **Future Contracting:** Do you have any contract that extends beyond the compliance deadline or present plans to enter into a long-term contract in the future that would extend the operation of the unit past the compliance deadline?
 - a. If so, please explain for each generation station, or individual units if applicable:
 - i. What type of contract(s);
 - ii. The length and ending date for each contract;
 - iii. Any other details relevant to the duration of the contract, such as options to extend the contract.
 - iv. Please explain if, and how, this will affect your units' ability to successfully meet the specified SWRCB compliance deadline, in whole or part.

None of NRG's existing once-through cooled units currently have contracts that extend beyond the compliance deadline. However, as noted above, NRG continues to actively explore all commercial avenues for maximizing the value of these units, including seeking additional contracts that may extend past the compliance deadline.

3. **Permitting:** From now until the units' SWRCB compliance deadline, are any of your generation stations in the process of, or will any of your generation stations need to go through the process of, renewing or obtaining any permits?
 - a. If so, please explain:
 - i. The permits the station will need to renew or obtain;
 - ii. The estimated amount or range of time it would take to obtain the permits;
 - iii. The likelihood of obtaining such permits.

El Segundo holds a National Pollutant Discharge Elimination System ("NPDES") permit for the discharge of wastewater, including once-through cooling water. The permit is currently

administratively continued while the State Water Board processes the renewal application. In addition, El Segundo is in the process of renewing its Title V air permit with the SCAQMD. We anticipate receiving the requisite permits for the continuation of these operations.

Encina Power Station holds a NPDES permit for the discharge of wastewater, including once-through cooling water. This permit is currently administratively continued while the State Water Board processes the renewal application. Encina filed its renewal application on March 30, 2011. In addition, Encina's Title V air permit is currently administratively continued while the County of San Diego Air Pollution Control District processes the Title V renewal application. We anticipate receiving the requisite permits for the continuation of these operations. Modifications to the intake of cooling water to meet Track 2 of the 316(b) Policy will undergo permitting. We anticipate receiving the requisite permits for the modifications in a timely manner.

4. **Meeting Compliance Deadline:** Will your company's generation unit(s) be able to fully meet their respective compliance deadlines? Please provide separate answers for each generation plant (or unit, if necessary), and include any major contributing factors - e.g. contracting, permitting, or community opinion - affecting these answers.
- a. If your generation station is in partial or complete non-compliance by the deadline, what are your company's back-up plans?
 - i. Please describe the time frame and likelihood of success for such plans.
 - ii. If you have already stated the backup plan(s) for your units in documents submitted to the SWRCB, please produce these documents and state whether you have changed your plan(s) since submitting an implementation letter to the SWRCB.
 - b. If your company's stations or units are being retired in order to transfer the permits to another station, what is the timeline and likelihood of that station successfully meeting its Commercial Operation Date?

We anticipate that El Segundo and Encina will meet the respective compliance deadlines in the 316(b) Policy, if market conditions warrant. The timelines for meeting the compliance deadlines are in the respective Implementation Plans.

Additionally, NRG notes that its El Segundo Unit 3 will shut down before compliance deadline in accordance with the El Segundo Power Redevelopment Project license with the CA Energy Commission ("CEC") and the Title V facility permit to construct/permit to operate issued by South Coast Air Quality Management District ("SCAQMD").

It is also possible that certain Encina units would shut down in order to accommodate planned repowering of that site.

5. **Compliance Deadline Extension:** If applicable, do you have any information from which you can predict the likelihood that that your company's generation stations will obtain the extended compliance deadline requested in their respective implementation letters to the SWRCB?

A request for an extension to the compliance date (currently December 31, 2015) for El Segundo Unit 4 to December 31, 2017 was included in the Implementation Plan. The State Water Board has not responded to this request. No change to the Encina compliance deadline has been requested.

6. **Partial Compliance:** If you anticipate that only a portion of one or more of your generation stations will meet its current compliance deadline, for each plant, please state whether the units in compliance will be able to remain profitable and operational.
- If your answer is yes, explain how the plant can remain profitable with only partial units available.
 - On what factors does this profitability depend?

We anticipate that El Segundo and Encina will meet the current compliance deadline. Above we have addressed the request for extension of the compliance date for El Segundo Unit 4. Several possible scenarios for Encina for full compliance with the 316(b) Policy exist: repowering coupled with retirement of existing units; and Track 2 compliance through operational and structural controls as discussed in the Encina Implementation Plan. Specifically, NRG is seeking to develop the Carlsbad Energy Center Project ("CECP"), a 558 MW dry-cooled, fast-start and highly efficient combined cycle "repowering" project at the Encina Power Station site. No ocean water will be used for cooling CECP. If constructed and commissioned, the CECP would require the shutdown of Units 1-3 (collectively ~320 MW). Track 2 compliance options that have been considered for Units 4 and 5, as described in the Implementation Plan, include modifications to Encina's ocean water intake.

7. **Compliance Progress:** Please describe the current progress of your company's compliance plans for each of its generating stations and applicable units.
- Are they on track, as described in your company's implementation letters to the SWRCB?
 - If they are ahead or behind schedule, please describe for each station the extent it is ahead or behind schedule, and why.

The 316(b) Policy compliance objectives for El Segundo and Encina are on track as described in the Implementation Plans.

8. **Changes to Compliance Plan:** Is your company planning to submit a revised or updated compliance implementation plan?
- If so, what will be the substance of the changes?

- b. When do you plan to submit the revised implementation letter to the SWRCB?

Changes to either El Segundo or Encina Implementation Plans are not currently anticipated.

9. **Local Capacity Area:** In what Local Capacity Area (LCA) subarea(s) are your plants located?

El Segundo – El Nido subarea of the Los Angeles Basin local capacity area

Encina – San Diego local capacity area

10. **Encina**

- a. What is the current progress of the development of the Carlsbad Energy Center?
Please briefly describe the major steps, such as permitting, securing a PPA, financing, construction, etc.
- i. What has been completed?
 - ii. What is in progress?
 - iii. What remains to be done?
- b. What is the likelihood that the Carlsbad Energy Center will be successfully developed and on time?
- c. What impact, if any, would the Carlsbad Desalination Project have on the Encina compliance plan?
- d. What technology is being considered to meet Encina's Track 2 compliance obligations for Units 4 and 5?

CECP received its approval from the CA Energy Commission on May 31, 2012. We do not foresee any impacts to the 316(b) Policy compliance due to the Carlsbad Desalination Project. Track 2 compliance objectives and technologies for Encina are discussed in the Encina Implementation Plan.

11. **El Segundo**

- a. What technology is being used for El Segundo generation station's Units 5-8?

El Segundo Units 5-8 will use two 1x1 Siemens Flex Plant 10 combined cycle units that are fast start and air cooled; each train is approximately 280 megawatts.

12. Please produce all documents you have submitted to the SWRCB with regard to compliance with its OTC requirements, and all documents you have received from the SWRCB.

Links to documents submitted to the SWRCB with regard to compliance with CA 316(b) OTC Policy are provided below:

Ms. Hieta, DRA Project Coordinator
Ms. Rogers, DRA Project Coordinator
LTPP Proceeding R.12-03-014
June 12, 2012
Page 7

El Segundo

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/el_segundo/docs/esgs_ip2011.pdf

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/el_segundo/docs/npdesapp2011/esgs_npdesapp2011.pdf

Encina

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/encina/docs/eps_ip2011.pdf

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/encina/docs/eps_ip2011att2_application.pdf

We hope the above responses have addressed your requests. If you have any questions, please contact me at (760) 710-2156 or at george.piantka@nrgenergy.com, or Mr. Abraham Silverman at (609) 524-4696 or at abraham.silverman@nrgenergy.com.

Regards,



George L. Piantka
Director, Environmental Business
NRG Energy, Inc., West Region

cc: Diana Lee, Attorney for DRA
Sarah Thomas, Legal Division
Abraham Silverman, Senior Regulatory Counsel, NRG