

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298

Tel. No. (415) 703-1691



June 7, 2005

Advice Letter 2632-E

Rose de la Torre  
Pacific Gas & Electric  
77 Beale Street, Room 1088  
Mail Code B10C  
San Francisco, CA 94105

Subject: Tolling agreement with Duke Marketing Americas

Dear Ms de la Torre:

CORRECTED TO SHOW CORRECT EFFECTIVE DATE

Advice Letter 2632-E is effective April 7, 2005. A copy of the advice letter is returned herewith for your records.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean H. Gallagher".

Sean H. Gallagher, Director  
Energy Division



**Brian K. Cherry**  
Director  
Regulatory Relations

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San Francisco, CA 94105  
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February 23, 2005

**Advice 2632-E  
(Pacific Gas and Electric Company ID U 39 E)**

Public Utilities Commission of the State of California

**Subject: Duke Energy Marketing Americas Tolling Agreement**

Pacific Gas and Electric Company (PG&E) hereby submits for California Public Utilities Commission (Commission) review and approval, a three year physical tolling agreement beginning in 2005 with Duke Energy Marketing Americas (Duke or DEMA).

*All attachments, except Appendix B, to this advice letter comprise Confidential Protected Material, in accordance with the May 20, 2003, Modified Protective Order issued in Rulemaking (R.) 01-10-024, and pursuant to Public Utilities Code Section 583.*

**Purpose**

PG&E submits the proposed agreement in Confidential Appendix A and requests that the Commission issue a resolution no later than **April 4, 2005**, approving the proposed agreement in its entirety, and finding that this agreement and PG&E's entry into it are reasonable and prudent for all purposes, including, but not limited to, PG&E's recovery in rates of all payments made under this agreement, for the full term of the agreement, subject only to Commission review with respect to the reasonableness of PG&E's administration of this agreement.

PG&E's participation in Duke's generation Request for Bids (RFB) provides PG&E an opportunity to secure a resource to meet its capacity and energy needs for the period 2005-2007. The agreement provides PG&E the ability to meet its needs with low cost resources and keep generation in the market that might otherwise be retired. The Commission permitted utilities the authority and opportunity to bid in solicitations conducted by generators offering capacity and/or energy (D. 04-01-050, Finding of Fact 39).

**Background**

On October 11, 2004, DEMA issued a RFB from all qualified parties interested in purchasing the output of one or both of its Morro Bay Generation Units 3 and 4, 325 MW each, for up to three years. The DEMA RFB is provided in Appendix B to this Advice Letter.

On November 5, 2004, PG&E submitted non-binding 3-year bids in response to the RFB. PG&E was selected to the shortlist on November 15, 2004. Shortly thereafter, PG&E began negotiations with DEMA to purchase the full contract capacity (including ancillary services and Resource Adequacy unit certification) of both of its Morro Bay Generation Units 3 and 4 beginning in 2005 through December 2007.

The transaction provides the following benefits:

<ul style="list-style-type: none"> <li>Provides shapeable energy and planning reserves with maximum operating flexibility</li> </ul>	PG&E will toll the Morro Bay units, with full day-ahead and intra-day dispatch for energy and ancillary services.
<ul style="list-style-type: none"> <li>Has positive market value and portfolio fit</li> </ul>	The contract has a positive market value and compares favorably to PG&E's alternatives.
<ul style="list-style-type: none"> <li>Has a low notional cost with certainty of price and terms</li> </ul>	The contract pricing is very favorable compared to PG&E's alternatives.
<ul style="list-style-type: none"> <li>Is likely to count towards PG&amp;E resource adequacy requirements if and when the program is implemented</li> </ul>	The output of the units is dedicated exclusively to PG&E.
<ul style="list-style-type: none"> <li>Contains favorable credit terms</li> </ul>	Duke's performance is secured by rigorous operating requirements and an investment-grade entity.
<ul style="list-style-type: none"> <li>Retains capacity in the market</li> </ul>	Duke's RFB included an intention to retire the units if a power buyer was not found. This contract will contribute to adequate market supply over the contract term.

PG&E initially presented its proposed bid strategy to its Procurement Review Group (PRG) members on November 2, 2004. Details of the proposed transaction were subsequently presented to PG&E's PRG on December 14, 2004 and again on January 14, 2005. In response to PG&E's request for

feedback, PRG Members were supportive and expressed no concerns with the agreement. In Confidential Appendix C, PG&E provides the presentations made to its PRG, as well as minutes from the three PRG meetings.

Details of the proposed transaction and recommendation for approval of the agreement were presented to PG&E's Utility Risk Management Committee (URMC) on October 22, 2004 and January 21, 2005, and to PG&E Corporation's Risk Policy Committee (RPC) on February 2, 2005. Confidential Appendix D contains the URMC and RPC memorandums.

DEMA fully understands that this agreement does not take effect until the CPUC approves it.

### **Protests**

Anyone wishing to protest this filing may do so by sending a letter by **March 15, 2005**, which is 20 days from the date of this filing. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. Protests should be mailed to:

IMC Branch Chief – Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102  
Facsimile: (415) 703-2200  
E-mail: [jjr@cpuc.ca.gov](mailto:jjr@cpuc.ca.gov)

Copies should also be mailed to the attention of the Director, Energy Division, Room 4005 and Jerry Royer, Energy Division, at the address shown above. It is also requested that a copy of the protest be sent via postal mail and facsimile to Pacific Gas and Electric Company on the same date it is mailed or delivered to the Commission at the address shown below.

Pacific Gas and Electric Company  
Attention: Brian Cherry  
Director, Regulatory Relations  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, California 94177  
Facsimile: (415) 973-7226  
E-mail: [RxDd@pge.com](mailto:RxDd@pge.com)

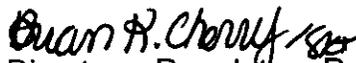
### **Effective Date**

PG&E requests that this advice filing become effective on **April 4, 2005**, which is 40 days after the date of filing.

**Notice**

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter excluding the confidential appendices is being sent electronically and via U.S. mail to parties shown on the attached list and the service list for R.01-10-024. Non-market participants who are members of PG&E's Procurement Review Group and have signed appropriate Non-Disclosure Certificates will also receive the advice letter and accompanying confidential attachments by overnight mail.

The portions of this advice letter so marked Confidential Protected Material are in accordance with the May 20, 2003, Modified Protective Order in R. 01-10-024 Regarding Confidentiality of Pacific Gas and Electric Company (PG&E) Power Procurement Information. As required by that Order, reviewing representatives of Market Participating Parties will not be granted access to Protected Material, but will instead be limited to reviewing redacted versions of documents that contain Protected Material.

  
Director – Regulatory Relations

## Attachments

Confidential Appendix A	Procurement Agreement for which PG&E Seeks Commission Approval
Appendix B	Duke Energy Marketing Americas Request for Bids for Morro Bay Generation Units 3 and 4, Commencing January 1, 2005
Confidential Appendix C	Procurement Review Group Minutes and Presentations; November 2, 2004, December 14, 2004 and January 14, 2005
Confidential Appendix D	URMC Memorandums dated October 22, 2004 and January 21, 2005 and RPC Memoranda dated February 2, 2005

**PG&E Electric Advice Filing List  
General Order 96-A, Section III(G)**

ABAG Power Pool  
Aglet Consumer Alliance  
Agnews Developmental Center  
Ahmed, Ali  
Alicantar & Elsesser  
Anderson Donovan & Poole P.C.  
Applied Power Technologies  
APS Energy Services Co Inc  
Arter & Hadden LLP  
Avista Corp  
Barkovich & Yap, Inc.  
BART  
Bartle Wells Associates  
Blue Ridge Gas  
Bohannon Development Co  
BP Energy Company  
Braun & Associates  
C & H Sugar Co.  
CA Bldg Industry Association  
CA Cotton Ginners & Growers Assoc.  
CA League of Food Processors  
CA Water Service Group  
California Energy Commission  
California Farm Bureau Federation  
California ISO  
Calpine  
Calpine Corp  
Calpine Gilroy Cogen  
Cambridge Energy Research Assoc  
Cameron McKenna  
Cardinal Cogen  
Cellnet Data Systems  
Childress, David A.  
City of Glendale  
City of Healdsburg  
City of Palo Alto  
City of Redding  
CLECA Law Office  
Constellation New Energy  
Cooperative Community Energy  
CPUC  
Creative Technology  
Crossborder Inc  
CSC Energy Services  
Davis, Wright Tremaine LLP  
Davis, Wright, Tremaine, LLP  
Defense Fuel Support Center  
Department of the Army  
Department of Water & Power City  
DGS Natural Gas Services  
DMM Customer Services  
Douglass & Liddell  
Downey, Brand, Seymour & Rohwer  
Duke Energy  
Duke Energy North America  
Duncan, Virgil E.  
Dutcher, John  
Dynegy Inc.  
Ellison Schneider  
Energy Law Group LLP  
Energy Management Services, LLC  
Enron Energy Services  
Exeter Associates  
Foster, Wheeler, Martinez  
Franciscan Mobilehome  
Future Resources Associates, Inc  
G. A. Krause & Assoc  
Gas Transmission Northwest Corporation  
GLJ Energy Publications  
Goodin, MacBride, Squeri, Schlotz &  
Hanna & Morton  
Heeg, Peggy A.  
Hitachi Global Storage Technologies  
Hogan Manufacturing, Inc  
House, Lon  
Imperial Irrigation District  
Integrated Utility Consulting Group  
International Power Technology  
J. R. Wood, Inc  
JTM, Inc  
Kaiser Cement Corp  
Korea Elec Power Corp  
Marcus, David  
Masonite Corporation  
Matthew V. Brady & Associates  
Maynor, Donald H.  
McKenzie & Assoc  
McKenzie & Associates  
Meek, Daniel W.  
Mirant California, LLC  
Modesto Irrigation Dist  
Morrison & Foerster  
Morse Richard Weisenmiller & Assoc.  
New United Motor Mfg, Inc  
Norris & Wong Associates  
North Coast Solar Resources  
Northern California Power Agency  
PG&E National Energy Group  
Pinnacle CNG Company  
PITCO  
PPL EnergyPlus, LLC  
Praxair, Inc.  
Price, Roy  
Product Development Dept  
R. M. Hairston & Company  
R. W. Beck & Associates  
Recon Research  
Regional Cogeneration Service  
RMC Lonestar  
Sacramento Municipal Utility District  
SCD Energy Solutions  
Seattle City Light  
Sempra  
Sempra Energy  
Sequoia Union HS Dist  
SESCO  
Sierra Pacific Power Company  
Silicon Valley Power  
Simpson Paper Company  
Smurfit Stone Container Corp  
Southern California Edison  
SPURR  
St. Paul Assoc  
Stanford University  
Sutherland, Asbill & Brennan  
Tabors Caramanis & Associates  
Tansev and Associates  
Tecogen, Inc  
TFS Energy  
Transwestern Pipeline Co  
Turlock Irrigation District  
U S Borax, Inc  
United Cogen Inc.  
URM Groups  
Utility Cost Management LLC  
Utility Resource Network  
Wellhead Electric Company  
Western Hub Properties, LLC  
White & Case  
WMA

Appendix B

Duke Energy Marketing America Request for Bids  
for Morro Bay Generation Units 3 and 4,  
Commencing January 1, 2005



# Duke Energy North America, LLC

## Unit Contingent Capacity Auction for Morro Bay Units 3 & 4

- Auction Description:** Duke Energy Marketing America, LLC (“DEMA”) and certain of its affiliates (collectively “Duke”) intend to auction the electric generating capacity and associated energy from certain electric generation facilities owned by Duke Energy Morro Bay LLC (“DEMB”). Duke encourages all Qualified Bidders to participate in the auction process, which will follow the Schedule defined below.
- Auction Schedule:** Duke will conduct the auction process according to the following schedule:
- |                            |  |
|----------------------------|--|
| October 11, 2004           | Auction terms issued                             |
| October 18, 2004, 1600 CPT | Notice to Participate Forms due                  |
| October 19, 2004           | Tolling Agreements provided to Qualified Bidders |
| November 5, 2004, 1600 CPT | Bids due   |
| November 14, 2004          | Contracts awarded                                |
- Auction Process:** A Qualified Bidder may bid for the capacity of one or both Units and the capacity will be awarded to the bidder(s) submitting the highest bid, subject to the following procedural constraints:
1. Duke reserves the right to make no capacity award if a bid is non-conforming, as defined within this solicitation, or if a bid is otherwise unacceptable to Seller;
  2. The entire capacity of each unit will be awarded to one Qualified Bidder. The two units may be awarded individually to two Qualified Bidders and it is also possible for one Qualified Bidder to be awarded the capacity of both units; and
  3. In consideration of Duke’s operating costs shared by both Units at the Morro Bay facility, Duke reserves the right to make no capacity award in the event that it does not receive bids exceeding the Minimum Capacity Price for both Units.
- Non-Conforming Bids:** A bid will be deemed non-conforming if:
1. The bid’s capacity price is not greater than or equal to the Minimum Capacity Price(s) detailed in this proposal;
  2. The bidder does not accept the credit and contract terms set forth in Seller’s Tolling Agreement;
  3. In Seller’s view the bid does not meet Seller’s auction objectives.
- Seller:** DEMA or an affiliate
- Buyer:** A Qualified Bidder, defined as (a) a California-based Load Serving Entity (“LSE”), which may include (i) an investor-owned utility; (ii) irrigation district; (iii) municipal utility; or (iv) public utility district; and (b) any other entity whose senior unsecured credit rating is rated at least investment grade (BBB- / Baa3) by Standard & Poor’s or Moody’s, or (c) other party subject to satisfactory negotiation of credit terms.
- Facilities:** Duke Energy Morro Bay Unit 3 & Unit 4 and certain equipment related to each, including interconnection facilities (each a “Facility” or “Unit” and collectively the “Facilities” or “Units”).
- Morro Bay Unit 3, located approximately 12 miles north of San Luis Obispo, San Luis

Obispo County, California, is comprised of a natural gas-fired boiler and steam turbine and has a nominal Facility rating of 337 MW.

Morro Bay Unit 4, located approximately 12 miles north of San Luis Obispo, San Luis Obispo County, California, is comprised of a natural gas-fired boiler and steam turbine and has a nominal Facility rating of 336 MW.

**Form of Agreement:** Seller shall furnish a Tolling Agreement based upon the terms and conditions detailed in this solicitation. Buyers shall be required to accept the terms of Seller's agreement. Duke will not consider non-conforming bids.

**Delivery Period:** Bidder may choose to bid on one or more of the following transaction terms, each defined individually as a Delivery Period:

One Year Term: January 1, 2005 through December 31, 2005

Two Year Term: January 1, 2005 through December 31, 2006

Three Year Term: January 1, 2005 through December 31, 2007

During the Delivery Period, Buyer shall have the right to dispatch the Unit(s) for Hour Ending ("HE") 0100 through HE 2400 Pacific Prevailing Time ("PPT"), Monday through Sunday, including NERC Holidays.

**Service Level:** Unit-contingent capacity served by each facility and associated (a) unit-contingent energy (the "Product"); (b) Ancillary Services; and (c) Capacity Certificates for Resource Adequacy ("RA") purposes, in the event that regulatory authorities institute such RA requirements during the Delivery Period.

For the purpose of this solicitation and any resulting transaction, "Unit-contingent" shall mean that if a Unit's available capacity is reduced as the result of an Excusable Event, Buyer's rights to the Contract Capacity and associated energy shall be reduced to the level of capacity available from the Facility and Seller shall be under no obligation to provide compensation, in any form, to Buyer for the reduction, so long as the Unit's Actual Availability Factor is greater than or equal to the Guaranteed Availability Factor. If the Unit's available capacity is reduced as the result of an event other than an Excusable Event, Buyer shall be entitled to a rebate of Capacity Payments. The methodology for calculating such rebates is detailed in the Availability Factor section of this solicitation.

**Dispatch Rights:** In consideration for Capacity Payments made to Seller, Buyer shall have full dispatch rights to the Facility, limited by (a) the rules of the California Independent System Operator ("CAISO"), as may be amended from time to time; (b) the operational and environmental limitations of the Facility; and (c) any contractual and/or physical limitations of the facility. All known Unit-specific limitations have been detailed by Seller in Attachment A to this solicitation, "Duke Energy Morro Bay Capabilities." Attachment A and its associated Schedules are provided solely as indicative information to assist Qualified Bidders in their evaluation and should not be viewed as a guarantee of Unit performance.

**Ancillary Services:** Consistent with the rules of the CAISO, Buyer may schedule, in amounts detailed in Attachment A, (a) Spinning Reserve; (b) Non-spinning Reserve; (c) Regulation Up; (d) Regulation Down; and (e) Replacement Reserve.

**Contract Capacity:** The Contract Capacity for each Facility shall be equal to:

Morro Bay Unit 3: 325 MW

Morro Bay Unit 4: 325 MW

Minimum Capacity Price: The monthly Capacity Price, in \$/kW-month, shall be greater than or equal to:

	One Year <u>Term</u>	Two Year <u>Term</u>	Three Year <u>Term</u>
Morro Bay Unit 3:	\$2.75	\$2.69	\$2.60
Morro Bay Unit 4:	\$2.89	\$2.83	\$2.74

Additional Fixed Cost: In the event that jurisdictional Federal, State and/or Local regulatory or governing entities impose additional operating, licensing, environmental, tax or other mandatory fees on the Facility during the Delivery Period, Buyer shall be responsible for reimbursing Seller for its pro-rata share of these expenses.

Variable O&M Charge: The Variable O&M ("VOM") charge, in \$/MWh, for each delivered MWh of energy shall be equal to:

	One Year <u>Term</u>	Two Year <u>Term</u>	Three Year <u>Term</u>
Morro Bay Unit 3:	\$1.03	\$1.05	\$1.08
Morro Bay Unit 4:	\$1.03	\$1.05	\$1.08

Start Charges: Buyer shall pay Seller a Start Charge, for each Unit start when a Facility has been off-line for at least the Minimum Downtime, equal to the following:

	Minimum <u>Downtime</u>	<u>Start Charge</u>
Morro Bay Unit 3:	4 hours	\$7,542
Morro Bay Unit 4:	4 hours	\$7,542

Start Fuel: In addition to the above Start Charges, Buyer shall supply the following amounts of fuel for each Unit start:

	Fuel per <u>Start</u>
Morro Bay Unit 3:	1,820 MMBtu
Morro Bay Unit 4:	1,820 MMBtu

Gas Transportation Charge: The Gas Transportation Charge for all natural gas transported by Seller on behalf of Buyer from the Gas Delivery Point to the Facility shall be \$0.244 / MMBtu.

Capacity Payment: No later than five (5) business days prior to each month of delivery, Buyer shall pay Seller a Capacity Payment, calculated as the product of (a) the Contract Capacity; (b) the Capacity Price; and (c) 1,000 kW per MW.

Variable Payment: No later than the fifth (5<sup>th</sup>) business day of the month following each month of delivery, Buyer shall pay Seller a Variable Payment consisting of the following:

1. A VOM Payment, calculated as the product of (a) the Delivered Energy for the month of delivery, expressed in MWh; and (b) the Variable O&M Charge; and
2. A Start Charge Payment equal to the sum of the Start Charges incurred during the month of delivery; and
3. A Gas Transportation Payment equal to the product of (a) the amount of natural gas transported by Seller on behalf of Buyer from the Gas Delivery Point to the Facility; and (b) the Gas Transportation Charge.

Fuel Supply: Buyer shall be responsible for arranging delivery, to the Gas Delivery Point, of the quantity of natural gas required to produce Buyer's requested amount of the Product,

including, as applicable, start fuel, for each hour in which Buyer has scheduled delivery of the product. In addition, Buyer shall be responsible for any additional amounts for losses, imbalance charges and any transportation fees, taxes or assessments associated with the delivery of natural gas to the Facility.

Gas Delivery Point: PG&E City-gate

Heat Rate: The quantity of natural gas required by each Unit to produce energy, varies by Unit load and is detailed in the heat rate formulae and table provided in Schedule 1.

Power Delivery Point: The interconnection point between the facility and the Pacific Gas & Electric Company transmission system.

Transmission: Seller shall be responsible for all transmission costs and arrangements to the Power Delivery Point. Buyer shall be responsible for all transmission costs and arrangements at and from the Power Delivery Point.

Delivered Energy: The amount of Product, expressed in MWh, delivered by Seller to Buyer at the Power Delivery Point.

Scheduled Energy: The amount of Product, expressed in MWh, requested by Buyer in accordance with the scheduling procedures, for delivery to the Power Delivery Point.

Available Energy: The sum of the actual Capacity available for dispatch for each hour of the Delivery Period.

Total Energy: The product of the Contract Capacity and all hours of the Delivery Period.

Actual Availability Factor: The quotient of (a) the sum of Available Energy and Excused Energy, divided by (b) the Total Energy.

Guaranteed Availability Factor: The Guaranteed Availability Factors for the Units shall be:

Morro Bay Unit 3:	93%
Morro Bay Unit 4:	93%

For each percentage point amount the Actual Availability Factor during the Delivery Period is below the Guaranteed Availability Factor (the "Deficiency Amount"), Seller shall pay Buyer a rebate calculated as the product of (a) the Deficiency Amount; and (b) the Capacity Payment for the Delivery Period.

Excused Energy: Capacity that is not available for dispatch of the Product during the Delivery Period as the result of an Excused Event.

Excused Events: Excused Events shall include (a) a Force Majeure event affecting the Facility; (b) Scheduled Maintenance; (c) Buyer's failure to deliver natural gas to the Gas Delivery Point; (d) Buyer's failure to make transmission arrangements at and from the Power Delivery Point; (e) conditions on the electric transmission system, including a Force Majeure event, congestion, transmission constraints and the refusal of the transmission provider to accept and transmit energy; (f) conditions on the gas pipeline system, including a Force Majeure event and curtailment of firm natural gas transportation service; (g) Environmental and Operational Limitations; and (h) Contractual Limitations.

Force Majeure Event: Force Majeure Event shall mean a cause or event that prevents a Party from performing any of its obligations under this Agreement that is not within the reasonable control of the Party, without the fault or negligence of the Party and that by the exercise of due

diligence the Party is unable and could not reasonably been expected to avoid, cause to be avoided, or overcome. Events of Force Majeure may include, but are not restricted to, acts of God; acts of the public enemy, war, blockades, insurrections, sabotage, civil disturbances, riots, terrorism; strikes or other work stoppages, lock-outs, or other industrial disturbances or labor disputes, labor or materials shortage; epidemics, landslides, lightning, earthquakes, firestorms, hurricanes, tornadoes, floods, washouts; fire, explosion, or other unusually severe or extreme actions of the elements; catastrophic equipment failure; and actions or failures to act of any governmental agency preventing, delaying or otherwise adversely affecting performance by a Party hereto.

Force Majeure shall not include (i) changes in market conditions that affect the cost or availability of supply of goods or services, (ii) the unavailability of equipment, except to the extent directly caused by an event of Force Majeure as defined above, which could reasonably have been avoided by compliance with Good Utility Practices, and (iii) changes in market conditions that affect the price of energy or capacity or fuel.

- Credit: Credit provisions satisfactory to Seller will be negotiated in the form of an EEI Master Agreement.
- Scheduling Coordinator: No later than thirty days prior to the first (1<sup>st</sup>) day of the Delivery Period, Buyer shall designate a Scheduling Coordinator for purposes of scheduling the Product.
- Power Scheduling Procedure: No later than 0615 PPT on the applicable pre-scheduling day, Buyer shall provide Seller with a schedule indicating the amount of the Product Buyer requests for delivery to the Power Delivery Point for every hour of the day of delivery. Pre-scheduling days are established by the ISAS Subcommittee of the Western Electric Coordinating Council ("WECC").
- Gas Scheduling Procedure: No later than 0730 PPT on the day prior to each day of delivery, Buyer shall provide Seller with a schedule indicating the amount of natural gas Seller intends to deliver to the Gas Delivery Point.
- Scheduled Maintenance: Consistent with Seller's adherence to Good Utility Practices, Seller expects to perform certain scheduled maintenance procedures ("Scheduled Maintenance") on the Facilities during the Delivery Period. Seller anticipates that Scheduled Maintenance will comprise approximately the following amount of time during the Delivery Period:
- |                   | Days per<br>Year |
|-------------------|------------------|
| Morro Bay Unit 3: | 56 days          |
| Morro Bay Unit 4: | 56 days          |
- Operational and Environmental Limitations: All applicable operational and environmental limitations are detailed in Attachment A.
- Contractual Limitations: Operational performance of the Units is not limited by any contractual agreements.
- Good Utility Practices: Good Utility Practices means the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry operating in the WECC region during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practices are not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather includes all acceptable practices, method, or acts generally accepted in

the region. Good Utility Practice shall include, but not be limited to, applicable law and regulatory requirements, and the criteria, rules and standards promulgated by NERC, the WECC, RTO, National Electric Safety Code, and National Electrical Code, as they may be amended from time to time, including the rules and guidelines and criteria of any successor organizations.

## ATTACHMENT A

### Duke Energy Morro Bay Capabilities

#### Applicable Generating Units:

Unit(s)	Morro Bay #3	Morro Bay #4
Location	ZP-26 / Morro Bay	ZP-26 / Morro Bay
Name Plate	MORBAY_7_UNIT 3	MORBAY_7_UNIT 4
ISO Resource ID	MORBAY_7_UNIT 3	MORBAY_7_UNIT 4
ISO P. Max	337	336
Net Dependable Cap.	325	325
ISO P. Min	30	30
ISO Ancillary Service Certifications	Spin, Non-Spin, AGC and Repl.	Spin, Non-Spin, AGC and Repl.
Unit Description	Steam Generator	Steam Generator

#### ISO UNIT DESIGNATION: MORBAY\_7\_UNIT 3

Ancillary Service Capacity	Ramp Rate MW/min	Maximum Quantity (Per appropriate Product)
Regulation Up	10	173 (10x30 min or 323 - 144)
Regulation Down	10	173 (10x30 min or 323 - 144)
Spinning Reserve	10	100 (10 MW/min x10 min)
Non-Spinning Reserve	10	100 (10 MW/min x10 min)
Replacement Reserve	10	255 (10x60 min or 330 - 75)

#### ISO UNIT DESIGNATION: MORBAY\_7\_UNIT 4

Ancillary Service Capacity	Ramp Rate MW/min	Maximum Quantity (MWh/hr)
Regulation Up	10	173 (10x30 min or 323 - 144)
Regulation Down	10	173 (10x30 min or 323 - 144)
Spinning Reserve	10	100 (10 MW/min x10 min)
Non-Spinning Reserve	10	100 (10 MW/min x10 min)
Replacement Reserve	10	255 (10x60 min or 330 - 75)

Units are required to manually change pump configuration if Unit is desired to go above 165 MW or below 144 MW. Range of pumps: 1 pump (30 MW – 165 MW), 2 pumps (144 MW – 330 MW).

## SCHEDULE 1

### Variable Heat Rate Curve Morro Bay Unit #3 and #4

Station Name: Morro Bay  
 Unit Number: Unit 3  
 Contract Capacity: 325 MW  
 Minimum Load: 30 MW  
 Minimum Load on AGC: 75 MW

Heat Rate Coefficients:

A = 0.0001

B = 8.8560

C = 179.6

Heat Input =  $(Ax^2 + Bx + C)/x$  (See Heat Rate Table below)

<u>MW Ranges</u>	<u>Ramp Rates MW/Min</u>
30 – 50	2
50 – 75	3
75 -165	10
144 – 323	10
323 – 325	2

Station Name: Morro Bay  
 Unit Number: Unit 4  
 Contract Capacity: 325 MW  
 Minimum Load: 30 MW  
 Minimum Load on AGC: 75 MW

Heat Rate Coefficients:

A = 0.0004

B = 8.8754

C = 191.0

Heat Input =  $(Ax^2 + Bx + C)/x$  (See Heat Rate Table below)

<u>MW Ranges</u>	<u>Ramp Rates MW/Min</u>
30 – 50	2
50 – 75	3
75 -165	10
144 – 323	10
323 – 325	2

Scheduled Energy * (MW)	Heat Rate Btu/kW		Ramprate MW/min
	MW	MB3	MB4 MB3&4
30	14,846	15,254	2
35	13,991	14,347	2
40	13,350	13,666	2
45	12,852	13,138	2
50	12,453	12,715	2
55	12,127	12,370	3
60	11,855	12,083	3
65	11,626	11,840	3
70	11,429	11,632	3
75	11,258	11,452	3
80	11,109	11,295	10
85	10,977	11,156	10
90	10,861	11,034	10
95	10,756	10,924	10
100	10,662	10,825	10
105	10,577	10,736	10
110	10,500	10,656	10
115	10,429	10,582	10
120	10,365	10,515	10
125	10,305	10,453	10
130	10,251	10,397	10
135	10,200	10,344	10
140	10,153	10,296	10
145	10,109	10,251	10
150	10,068	10,209	10
155	10,030	10,170	10
160	9,995	10,133	10
165	9,961	10,099	10
170	9,929	10,067	10
175	9,900	10,037	10
180	9,872	10,009	10
185	9,845	9,982	10
190	9,820	9,957	10
195	9,797	9,933	10
200	9,774	9,910	10
205	9,753	9,889	10
210	9,732	9,869	10
215	9,713	9,850	10

220	9,694	9,832	10
225	9,677	9,814	10
230	9,660	9,798	10
235	9,644	9,782	10
240	9,628	9,767	10
245	9,614	9,753	10
250	9,599	9,739	10
255	9,586	9,726	10
260	9,573	9,714	10
265	9,560	9,702	10
270	9,548	9,691	10
275	9,537	9,680	10
280	9,525	9,670	10
285	9,515	9,660	10
290	9,504	9,650	10
295	9,494	9,641	10
300	9,485	9,632	10
305	9,475	9,624	10
310	9,466	9,616	10
315	9,458	9,608	10
320	9,449	9,600	10
325	9,441	9,593	3

Schedule 2

Operating Restrictions  
Morro Bay Unit #3 and/or #4

<u>Type</u>	<u>Measurement Units For Limit</u>	<u>Period Of Applicability*</u>	<u>Limit</u>
Start-Up Time Hot (unit down 0-3 hrs)	[Hours]	Term of Contract	3 – 4 hrs
Start-Up Time Warm (unit down 3 – 12 hrs)	[Hours]	Term of Contract	5 – 7 hrs
Start-Up Time Cold	[Hours]	Term of Contract	14
Number Of Start- Ups	[Number]	[Applicable period]	1 per day
Minimum Run Time	[Hours]	Term of Contract	4
Minimum Down Time	[Hours]	Term of Contract	4
Ramp Rates	[MW/Min]	Term of Contract	10
Minimum Operating Level	[MW]	Term of Contract	30

Schedule 2 (continued)

Operating Restrictions  
Morro Bay Unit #3 and/or #4

Other Operating Constraints	N/A	
	Limit	how limit is significant to operation and dispatch
Environmental		
Run limits for natural gas (hours per year)	Heat Input limit. There is both an hourly and daily limit. For each Unit 3 and 4, the hourly limit is 3,500 MMBtu; the daily limit is 76.8 billion Btu. This limit restricts the Units from running at full load 24 hours per day.	
NOx limits - Natural Gas (limit and under what conditions this affects dispatch & availability)	2.5 tons of NOx per Day for entire plant  56 ppm instantaneous Nox limits	Limits constrain the potential plant output on a daily basis if both Unit 3 and Unit 4 are running at full load. No limit if only one unit is on line.  Typically not a constraint
CO limits - Natural Gas (limit and under what conditions this affects dispatch & availability)	1000 ppm 2000 ppm	1000 ppm – clock hour average  2000 ppm – hourly average – during required annual test. To Duke’s knowledge, this limit has never affected dispatchability or availability.
Water volume discharge limits (limit and under what conditions this affects dispatch & availability)		Plant has a maximum discharge limit of 725 mgd. Has never limited or affected dispatch or availability. Normal operation daily discharge is about 667 mgd
Water Outfall limits $\Delta T$ (limit and under what conditions this affects dispatch & availability)		Plant has a Delta T limit of 30 degrees (based on a 24 hour hourly average). The plant has not been limited or affected by this limit in a very long time, but could potentially in the future if equipment does not perform (i.e. circ water pump perf drops off, efficiency of condenser degrades etc)

		<p>Plant has a 35 degree delta T limit (instantaneous) during demusseling operations. Demusseling procedures and practices are performed in such a manner to stay under this limit.</p>
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# Duke Energy North America, LLC

## Morro Bay Capacity Auction

### Notice of Intent to Bid Form

The company named below ("Bidder") hereby gives notice to Duke Energy North America, LLC ("Seller") of its intent to submit one or more bids to Seller for capacity to be served from the Unit(s) described in Seller's solicitation, issued October 11, 2004. Bidder acknowledges that this Notice of Intent to Bid is non-binding and does not form an obligation to submit a bid or enter into a contract for capacity.

**Bidder Information:**

Company (full legal name):	
Company Mailing Address:	
Contact:	
Title:	
Phone:	
Fax:	
Email:	

Please return completed form to James Mackey at [jbmackey@duke-energy.com](mailto:jbmackey@duke-energy.com)

Authorized Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_