

Company: San Diego Unified Port District
Application: 17-09-005
Witness: Stephen Shafer
Exhibit No.: SDUPD-_____

**PREPARED REBUTTAL TESTIMONY OF
STEPHEN SHAFER
ON BEHALF OF SAN DIEGO UNIFIED PORT DISTRICT**

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

MAY 23, 2018

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1 **I. WITNESS BACKGROUND, BUSINESS TITLE AND ADDRESS**

2 My name is Stephen Shafer and my business address is 3165 Pacific Highway, San Diego,
3 CA 92101. I am the Maritime Program Manager at the San Diego Unified Port District
4 (“District”). I previously submitted testimony in this proceeding on September 26, 2017. As part
5 of that testimony, I provided details on my education and experience. The purpose of this
6 testimony is to rebut positions set forth in the Prepared Direct Testimony submitted by the Office
7 of Ratepayer Advocates (“ORA”) and on behalf of The Utility Consumers’ Action Network
8 (“UCAN”) on April 25, 2018, in this proceeding. My testimony today is one part of the District’s
9 overall rebuttal with the second part presented in the concurrently-filed testimony of Dr. Adam
10 Borison. In general, my testimony addresses errors in the ORA and UCAN testimony arising
11 from their lack of knowledge about maritime and cruise ship operations and misstatements in
12 their testimony on these topics. Dr. Borison’s testimony addresses criticisms of the elasticity
13 model discussed in some detail in the District’s direct testimony and responds to other testimony
14 submitted by ORA and UCAN.

15 **II. OVERVIEW OF TESTIMONY**

16 As a general comment, I am deeply involved in the maritime operations of the District and
17 have great familiarity with cruise ship operations in San Diego and western North America. In
18 my direct testimony, along with Dr. Borison’s and the SDG&E witnesses, the significant need for
19 rate mitigation associated with the “perfect storm” of the CARB regulations, cruise ship
20 operations at the District and the introduction of new SDG&E rate design was explained in some
21 detail. Similarly, AB 628 encouraged port districts to work with utilities to explore energy
22 management plans to address energy usage, environmental goals and efficiency in collaborative
23 partnerships. This application is the result of the collaboration, and we fully expect that
24 collaboration with SDG&E will continue.

25 In this context, ORA and UCAN’s testimony ignores the unique circumstances presented
26 and the very real relief needed to avoid disastrous outcomes for the San Diego region. The ORA
27 and UCAN witnesses gloss over these significant impacts and propose “solutions,” such as steep
28

1 ramp-ups, that do not solve the problem faced by the District at this time.¹ As noted here, in Dr.
2 Borison’s testimony and in the testimony concurrently submitted by SDG&E, ORA and UCAN’s
3 positions are demonstrated to be flawed.

4 In this testimony, I address various misstatements by ORA witness Fong and UCAN
5 Witness Charles concerning maritime operations at the District. Both Mr. Fong and Mr. Charles
6 have indicated a complete lack of knowledge on cruise ship operations.² Given that, it is not
7 surprising that these witnesses have misunderstood or misstated the impact associated with the
8 dramatic increases in Shore Power rates that will occur if the proposed rate mitigation is not
9 provided by the Commission. These points are highlighted below.

10 **III. REBUTTAL TO ORA TESTIMONY**

11 **A. ORA Witness Fong’s Analysis of Cost and Benefits Are Based on Inaccurate** 12 **Facts and Do Not Reflect the San Diego Market**

13 **1. Vessel Call Costs**

14 In an effort to minimize the impact of the shore power rate increase, Mr. Fong has
15 dramatically overstated the cost of a call at San Diego using a very unsophisticated analysis and
16 has also overstated the importance of overall operating cost as a concept.³ As described by Dr.
17 Borison, demand to call in San Diego by cruise ships is elastic and is determined by the price of
18 calling in San Diego in comparison to other ports. The District does not analyze the cruise lines’
19 “overall operating costs” because that figure is completely irrelevant to our business out of the
20 cruise terminal. In my analysis, the one substantial cost that is completely non-negotiable for the
21 cruise lines is the cost of shore power, and because of the CARB at-berth regulation, the only way
22 for cruise lines to avoid paying that cost is to stop calling in San Diego five or more times per
23 calendar year.

24
25
26 ¹ See e.g., ORA Witness Danforth, pp. 1-2 to 1-4, 1-12; UCAN Witness Charles, p. 25.

27 ² See ORA Data Responses (narrative portion only) attached hereto as **Exhibit 1**; Responses to
28 Q.5, pp. 1-2; Q.13, p. 4; UCAN Data Responses (narrative portion only) attached hereto as
Exhibit 2, Response to Q.5, p. 1.

³ See ORA Witness Fong, pp. 2-8 to 2-11.

1 However, it is worth noting that ORA’s calculation of \$2.5M per vessel call cost figure is
2 significantly inflated and based on an inappropriate analysis. Mr. Fong’s analysis is based on only
3 one document – Carnival Corporation’s 2017 Annual Report – which contained highly
4 aggregated figures for a global corporation.⁴ Mr. Fong has no experience with maritime
5 transportation in general or cruise transportation in particular.⁵ Carnival Corporation has 10
6 global brands with cruises of different durations (from short weekends to over two weeks),
7 countries and markets of operation, regulatory requirements, levels of luxury, number of port
8 calls, size of vessels, amenities offered on the vessel, age of vessel and brand operating the vessel.
9 A one-size fits all “average” figure for the cost of a cruise is just that, the average cost per
10 passenger for the average duration cruise, on the average aged and sized ship, in an average
11 country and market, with average regulatory requirements, with average luxury and amenities,
12 and average brand. In other words, it is meaningless, since that “average” cruise does not exist.
13 In any case, the figure he uses is not representative of the cost per passenger of a cruise calling in
14 San Diego, nor is it useful in analyzing the price (and accompanying demand) for cruise lines to
15 call in San Diego. For that reason, his figure should be ignored.

16 **2. Passenger Volumes Fluctuations and Impact of Outside Factors**

17 Mr. Fong’s discussion of the reasons for the drop in the Port of San Diego’s cruise
18 passenger volumes is not supported by an analysis of Southern California regional cruise
19 volumes.⁶ Specifically, his assertion is incorrect that international events are the main reason for
20 the sustained drop in cruise passenger volumes out of the Port of San Diego. Mr. Fong wrongly
21 suggests that the sustained decline in San Diego business is related solely to factors other than
22 electricity rates.

23 The evidence against Mr. Fong’s analysis is demonstrated by the growth in passenger
24 volumes at the Port of Long Beach during the same period in discussion. Since it operates in the
25 same market, the Port of Long Beach experienced the same economic and political factors as the

26 _____
27 ⁴ See Exhibit 1, Response to Q.14, pp. 4-5.

⁵ See Exhibit 1, Response to Q.5 and Q.13, pp. 1-2, 4.

28 ⁶ See Fong Testimony, p. 2-6

1 Port of San Diego. Because of the Maritime Entities rate,⁷ however, maritime customers at Long
2 Beach now have and will continue to have access to low and stable shore power rates. Long
3 Beach's cruise passenger volumes have increased by nearly 200,000 annual passengers from 2011
4 (408,000) to 2016 (591,000).⁸ Indeed, while Long Beach experienced a reduction in passenger
5 volumes in 2013, Long Beach volumes rebounded fully in 2014, exceeding their previous highs.
6 2014 was the year that both the CARB shore power requirement and Long Beach's Maritime
7 Entities rate went into effect. In comparison, the Port of San Diego took longer to recover from
8 the downturn, and in 2014 one cruise line that would have been required to use shore power left
9 San Diego.

10 While it may be true that the economic downturn and violence in Mexico caused the
11 initial drop in passenger volumes, the shore power requirement and resulting lower costs in Long
12 Beach were the main culprit inhibiting San Diego's recovery and speeding Long Beach's
13 recovery. Long Beach was able to use its lower costs to capture market share of passengers that
14 were previously calling in San Diego. As explained in my initial testimony, one homeport line
15 left San Diego because they were not shore power capable, and a visitation line has shifted calls
16 from San Diego to other regional ports, such as Catalina, that do not have the shore power
17 requirement. Contrary to Mr. Fong's analysis, Long Beach gained market share during that same
18 time, even though they experienced the same economic and other outside factors.

19 **3. Mr. Fong Minimizes the Impact of Shore Power Rate Increase**

20 The impact of both these market analysis and cost shortfalls is that ORA underestimates
21 the price sensitivity of cruise lines to electricity rates, and therefore, also underestimates the
22 impact of shore power electricity rates on San Diego's cruise business. Dr. Borison explains those
23 true impacts in his initial and rebuttal testimonies.

24
25 _____
26 ⁷ Dr. Borison discusses the Maritime Entities rate in his rebuttal testimony. A copy of Southern
27 California Edison's Schedule ME tariff (April 14, 2014) is attached hereto as **Exhibit 3**. A
28 document entitled "Southern California Edison, Business Rate Basics: Rate Schedule ME for
Maritime Entities" – which provides information regarding the Long Beach rate – is attached
hereto as **Exhibit 4**.

⁸ http://cruising.org/docs/default-source/research/us_economicimpact-100217.pdf?sfvrsn=2.

1 **B. The Impact of CARB Regulations Must Be Taken Into Account in Rate**
2 **Consideration Here.**

3 ORA’s testimony asserting that the environmental benefits of cruise ships using shore
4 power should be ignored because they are in response to an independent regulatory requirement is
5 flawed.⁹ First, AB 628 declares that California “promotes the efficient use of low-cost, low-
6 emissions energy sources in the operations of its ports and harbors.” That declaration indicates
7 that the legislature finds low-cost, low-emissions energy usage to be beneficial in a maritime
8 transportation context, and at a more fundamental level, that the legislature values the continued
9 maritime operation of California’s ports. The Commission in turn should consider these benefits
10 and should reject ORA’s position which could result in the elimination of cruise ship operations
11 and their proven regional economic benefits. Second, because California’s requirements to use
12 shore power only apply to certain ports within the state, any movement of ships out of the state or
13 to the non-regulated ports due to electricity costs would lead to an increase in carbon emissions,
14 partially undermining the GHG reduction benefits of the regulation.

15 In addition to the environmental benefits, the CPUC should consider that the shore power
16 regulations are one of the primary causes of the problem and the concept that AB 628 was
17 enacted to mitigate impact of expensive electricity paired with shore power requirements though
18 CPUC-approved EMPs. UCAN and ORA both ignore this component of the rate proposal and
19 suggest that there is little harm to the elimination of the cruise operations in San Diego. The
20 cruise industry is distinct from other energy users in the San Diego region and rates designed for
21 other users do not meet the environmental and market needs of that industry.

22 **IV. RESPONSE TO UCAN AND ORA PROPOSED ALTERNATIVES**

23 Although ORA and UCAN both oppose the proposed shore power rate relief, both parties
24 minimally acknowledge that some relief is potentially warranted. Unfortunately, as described in
25 this section, the relief proposed includes both a very steep ramp-up to full rates and the
26 elimination of the companion Energy Efficiency and EPP proposals in which SDG&E and the
27 District would collaboratively examine options to improve load factor during the transitional

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⁹ See ORA witness Danforth, p. 1-4.

1 period. As explained here and in the initial testimony, the District believes that the full discount
2 period is needed to mitigate the rate shock and that the EE/EPP proposals are tools that can be
3 used to consider solutions.

4 **A. Ramp Up Proposals**

5 The Port of San Diego has entered into the EMP with SDG&E because of the importance
6 of a sustainable cruise shore power rate for the long-term sustainability of that business. The Port
7 is concerned less about the name of the ultimate rate and more about having a rate that sustains
8 the Port's cruise business (i.e., a regionally-competitive rate that the market will bear), allows for
9 future growth (consistent with AB 628), does not induce rate shock while getting to that
10 sustainable rate (i.e., drive out cruise lines by raising rates too quickly), and is sufficiently simple
11 that the Port can administer the pass-through of that rate in a fair and accurate manner.

12 The EMP's shore power rate keeps the volumetric rate in place for five years during
13 which time the Port and SDG&E will continue actively exploring technological, infrastructure,
14 and administrative solutions to reducing peak usage and increasing load factors through the EMP,
15 including the Energy Efficiency and Enhanced Partnership Proposals. The Port will continue
16 working with SDG&E to examine all available options, including recommendations proposed by
17 UCAN and ORA, as well as any future suggestions from CPUC. However, the District will need
18 the full five-year discount period to study, vet, gain approvals, and implement solutions in a way
19 that maintains the cruise business in San Diego.

20 **B. The EE/EPP Proposals Are Valuable Parts of EMP and Provide Vehicle for**
21 **Load Factor Improvement**

22 The Port disagrees with ORA that the CPUC should not approve the EE/EPP elements of
23 the EMP. As both the Port and SDG&E have described in our various testimonies and rebuttals,
24 the EE/EMP are critical components of the EMP. These components of the EMP are consistent
25 with the requirements of AB 628, including "the development of projects that provide greater
26 certainty of energy costs over a period of up to 15 years for businesses developing in the district."
27 By providing funds for the Port and SDG&E to partner in seeking solutions to the challenge of
28 finding an equitable and sustainable cruise shore power rate, as well as to help seek grants to

1 further enhance the efficient use of electricity on the Port tidelands, the EMP components also
2 advance the goals of reducing air emissions and promoting economic development

3 This concludes my testimony at this time.

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Exhibit 1
Prepared Rebuttal Testimony
of
Stephen Shafer

ORA Narrative Responses to
SDUPD Data Request
(May 14, 2018)

**Office of Ratepayer Advocates Response
to SDUPD Data Request**

| | |
|-------------------------|---------------------------------------------------|
| SDUPD Data Request No.: | SDUPU-A1709005-ORA001 |
| Proceeding | A.17-09-005 SDG&E Rate Relief and EMP Application |
| Prepared By | Shelly Lyser |
| Response Date | May 14, 2018 |

Q1. Please provide, on an ongoing basis, copies in Microsoft Word of all data requests made by all other parties in this proceeding to the Office of Ratepayer Advocates (ORA). Further, please also provide on an ongoing basis copies (either in Microsoft Word, Excel or in the same format as provided to the requesting party), all of the ORA responses to all data requests in this proceeding.

Answer 1

No other parties besides SDUPD have submitted data requests to ORA in this proceeding as of the date of this data request response. If ORA receives future data requests from any party, it will serve copies of both the data requests and ORA's responses on all parties including SDUPD.

Q2. Please provide all workpapers and supporting documentation related to ORA's April 25, 2018 Prepared Direct Testimony submitted in A.17-09-005, including the chapters sponsored by Mr. Danforth, Mr. Fong, Mr. Kuan, and Mr. Stellrecht.

Answer 2

See Attachment 1, 2, 3, 4, and 12, the workpapers of Mr. Danforth and Mr. Fong related to ORA's April 25, 2018 Prepared Direct Testimony submitted in A.17-09-005. No workpapers were prepared by Mr. Kuan or Mr. Stellrecht for their Prepared Direct Testimony.

Q3. Please provide a statement of all relevant work experience for Mr. Danforth, Mr. Fong, Mr. Kuan, and Mr. Stellrecht including employment outside of the California Public Utilities Commission.

Answer 3

Please see attachment 5, 6, 7, and 8, the relevant work experience of Mr. Danforth, Mr. Fong, Mr. Kuan, and Mr. Stellrecht.

Q4. Please provide copies of all prepared testimony submitted by Mr. Danforth, Mr. Fong, Mr. Kuan, and Mr. Stellrecht in other CPUC proceedings since April 25, 2016.

Answer 4

Please see Attachment 9 and 10, copies of testimony submitted by Mr. Danforth and Mr. Fong in other CPUC proceedings since April 25, 2016. Mr. Kuan and Mr. Stellrecht have not submitted testimony in other CPUC proceedings.

Q5. Please indicate whether any of the ORA witnesses have any experience with cruise ship and/or maritime operations. If so, for each ORA witness with cruise ship

operations and/or maritime experience, provide the level of experience, in detail, and explain where and how gained.

Answer 5

Mr. Danforth, Mr. Fong, Mr. Kuan, and Mr. Stellrecht do not have prior experience in the cruise ship industry.

- Q6.** With regard to Mr. Danforth's testimony (pp. 1-11 to 1-12), please state whether Mr. Danforth has ever analyzed rates for an industry with a similar elasticity profile to the cruise industry, where assets can leave the region/country literally overnight? If so, what was that industry and how was it treated?

Answer 6

Mr. Danforth's relevant experience related to data request 6 pertains to his supervision of Dr. Robert Levin, when Dr. Levin worked for ORA and wrote testimony related to the Port of Long Beach rate discount with SCE (A.12-12-027; D.14-03-007). Mr. Danforth's supervisory responsibilities included reviewing Dr. Levin's testimony and working with him in developing his recommendations. Mr. Danforth also reviewed settlement documents that were produced in that proceeding related to the negotiated rate discount. The primary work products were those of Dr. Levin.

- Q7.** With regard to Mr. Danforth's CTM analysis, please state whether Mr. Danforth or anyone at ORA has conducted CTM analysis for rates charged for shore power in other California ports? If so, provide all such analyses and related work papers?

Answer 7

With regard to the Port of Long Beach proceeding discussed in ORA's answer to Question #6 above (A.12-12-027), ORA did not conduct a CTM analysis. However, as was the case in the instant application from SDG&E, ORA requested that the utility (i.e., SCE) conduct such an analysis. It was provided to ORA as a response labelled A.12-12-027 DRA-POLB-SCE-002 Q.04-05. SCE marked the Excel spreadsheet provided in response to those two questions as confidential pursuant to PU Code Section 583 and General Order 66-3. ORA is not authorized to release that response to the SDUPD. The Port will have to request that response directly from SCE.

- Q8.** With regard to Mr. Danforth's CTM analysis:

(a) Please state whether Mr. Danforth or anyone at ORA conducted a CTM analysis factoring in all of the accounts at the Port and the applicable rates charged? If not, state why not? If so, provide such analysis or analyses and all related workpapers.

(b) Please indicate whether ORA has conducted CTM analyses in other proceedings in which ORA has looked only at a single dedicated meter rather than the customer as a whole. If so, please provide copies of such CTM analyses.

Answer 8

a. ORA has not conducted a CTM analysis factoring all the accounts at the Port. ORA did not do so because it would have required obtaining billing determinants for the Port and all of its tenants that use electricity paid for by the Port. ORA did obtain the total amount that Port pays for all of its electricity under all the customer accounts associated with the Port from SDG&E. This is further referenced in ORA's response to Question #10 below. That information was insufficient for performing a full CTM analysis.

b. ORA commonly performs CTM analysis in all EDR proceedings. Although ORA does not definitively know whether the various recipients of EDR contracts take service on a single meter, it is a reasonable assumption that they do because each EDR contract generally is associated with a particular customer account and rate schedule, and each account usually is uniquely associated with a single meter.

Q9. With regard to Mr. Danforth's proposed phase-in plan illustrated in Tables 1-1 and 1-2, please state whether any study was performed to identify the impact on the number of cruise ships using the Port of San Diego as a result of the phased increases? If so, please provide any such analyses and all supporting workpapers.

Answer 9

Mr. Danforth has not performed a study on the impact on the number of cruise ships from his phase-in proposal. However, Mr. Fong has conducted such a study on the final rates after the phase-in is completed and he found that the impact on the number of ships is minimal. It is a reasonable assumption that the impacts caused by the interim rates, which are lower than the final rates, would be even smaller.

Q10. With regard to Mr. Danforth's testimony on page 1-7 indicating that other customers will be incentivized to individually ask for rate discounts if SDUPD receives a discount, please indicate whether Mr. Danforth or anyone at ORA has compared the rate increases imposed on the Port District with other customers and identify all customers facing similar increases to the Port District in the same time period.

Answer 10

In ORA's experience, an 80.7% to 85.1% bill increase is unusual compared to other customers. However, as ORA indicated in footnote 16 of Chapter 1, the total bill increase that the Port would experience when all of its some two dozen accounts are considered is 72.7%, which is 11.5% per year. This increase is smaller than the increase that residential customers have faced in the last year and a half, shown on lines 1-2 of p. 1-7 of ORA's testimony to be 17% on an annual basis.

Q11. With regard to Mr. Danforth's testimony on page 1-7 indicating that other customers will be incentivized to individually ask for rate discounts if SDUPD receives a discount, please indicate whether Mr. Danforth or anyone at ORA has compared the rate increases imposed on the Port District with other customers and identify all customers facing similar increases to the Port District in the same time period.

Answer 11

ORA has not conducted or reviewed any studies to identify the rate impact on other SDG&E customers if the cruise ship industry were lost entirely. However, ORA calculated that the lost revenues would be up to \$2,574,199, under Schedule AL-TOU with CPP adder (ORA Testimony, p. 1-5, line 20). This is a small percentage of SDG&E's annual revenue requirement, which is well over \$3 billion. Thus, the rate impact on other customers from a total loss of the cruise ship industry would be small.

Q12. Please provide any working papers or background sources used by Mr. Fong in preparing his testimony.

Answer 12

See Attachment 12: "San Diego Unified Port District Workpaper jhf.xlsx" for workpapers and sources used by Mr. Fong in his preparing testimony.

Q13. Please provide any publications or papers prepared by Mr. Fong in the past related to maritime transportation, cruise markets, or overall transportation markets.

Answer 13

Mr. Fong does not have prior publications or papers related to maritime transportation, cruise markets, or overall transportation.

Q14. 14. With regard to Mr. Fong's testimony on page 2-2 estimating a \$2.5 million operating cost per cruise ship visit,

(a) Please provide all supporting documentation, model, or spreadsheets to support such figure;

(b) Please identify any searches conducted by Mr. Fong on cruise websites or with travel agents related to the cost per customer to take a cruise out of San Diego, other California ports, or any other port globally or to otherwise fact-check his analysis;

(c) Please identify any communication between Mr. Fong and cruise ship executives or other individuals employed in cruise ship operations, including the name, title and substance of the communication.

(d) Please explain whether Mr. Fong's use of Carnival Corporations' 2017 annual operating cost took into account all of Carnival Corp's lines of business, such as terminal operations, when deriving his cost estimates. If not, explain why not. If so, explain how other lines of business was factored into his analysis.

(e) Please explain if, and if so how, Mr. Fong's model took into account:

(i) the fact that most cruise itineraries have multiple port calls;

(ii) operating costs for days at sea with no port calls;

(iii) any differentiation between the costs of visitation calls and homeport calls

(f) Please identify and provide copies of any maritime industry reference materials used in deriving that figure?

(g) Please identify and provide copies of any maritime industry economic texts consulted to derive the cost estimate.

Answer 14

(a) See Attachment 12: “San Diego Unified Port District Workpaper jhf.xlsx” tabs Cruise Industry Analysis, Sample Year, and Rate Assumptions to find all supporting information and documentation to support the \$2.5 million operating cost per cruise ship visit.

(b) Mr. Fong relied heavily on Carnival Corporation’s 2017 10K to identify cost per customer. Mr. Fong requested information on the operating costs from the Port District, but the District was unable to provide it. Therefore, Mr. Fong developed a proxy based on Carnival Corporations 2017 10K.

Based on Carnival Corporation’s 2017 annual operating expenses of \$14,701,000,000 and 12,130,000 passengers, Mr. Fong developed a cost per customer of \$1,211.95.

SELECTED FINANCIAL DATA

The selected consolidated financial data presented below for 2013 through 2017 and as of the end of each such year, except for the statistical data, are derived from our consolidated financial statements and should be read in conjunction with those consolidated financial statements and the related notes.

| <i>(in millions, except per share, per ton and currency data)</i> | Years Ended November 30, | | | | |
|-------------------------------------------------------------------|--------------------------|-----------|-----------|-----------|-----------|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| Statements of Income Data | | | | | |
| Revenues | \$ 17,510 | \$ 16,389 | \$ 15,714 | \$ 15,884 | \$ 15,456 |
| Operating income | \$ 2,809 | \$ 3,071 | \$ 2,574 | \$ 1,772 | \$ 1,329 |
| Net income | \$ 2,606 | \$ 2,779 | \$ 1,757 | \$ 1,216 | \$ 1,055 |
| Earnings per share | | | | | |
| Basic | \$ 3.61 | \$ 3.73 | \$ 2.26 | \$ 1.57 | \$ 1.36 |
| Diluted | \$ 3.59 | \$ 3.72 | \$ 2.26 | \$ 1.56 | \$ 1.36 |
| Adjusted net income | \$ 2,770 | \$ 2,580 | \$ 2,106 | \$ 1,504 | \$ 1,209 |
| Adjusted earnings per share - diluted | \$ 3.82 | \$ 3.45 | \$ 2.70 | \$ 1.93 | \$ 1.55 |
| Dividends declared per share | \$ 1.60 | \$ 1.35 | \$ 1.10 | \$ 1.00 | \$ 1.00 |
| Statements of Cash Flow Data | | | | | |
| Cash provided by operating activities | \$ 5,322 | \$ 5,134 | \$ 4,545 | \$ 3,430 | \$ 2,834 |
| Cash used in investing activities | \$ 3,089 | \$ 3,323 | \$ 2,478 | \$ 2,507 | \$ 2,056 |
| Capital expenditures | \$ 2,944 | \$ 3,062 | \$ 2,294 | \$ 2,583 | \$ 2,149 |
| Cash used in financing activities | \$ 2,452 | \$ 2,591 | \$ 942 | \$ 1,028 | \$ 780 |
| Dividends paid | \$ 1,087 | \$ 977 | \$ 816 | \$ 776 | \$ 1,164 |
| Statistical Data | | | | | |
| ALBDs (in thousands) | 82,303 | 80,002 | 77,307 | 76,000 | 74,033 |
| Occupancy percentage | 105.9% | 105.9% | 104.8% | 104.1% | 105.1% |
| Passengers carried (in thousands) | 12,130 | 11,520 | 10,840 | 10,570 | 10,060 |

CARNIVAL CORPORATION & PLC CONSOLIDATED STATEMENTS OF INCOME (in millions, except per share data)

| | Years Ended November 30, | | |
|---------------------------------------|--------------------------|---------------|---------------|
| | 2017 | 2016 | 2015 |
| Revenues | | | |
| Cruise | | | |
| Passenger ticket | \$ 12,944 | \$ 12,090 | \$ 11,601 |
| Onboard and other | 4,330 | 4,068 | 3,887 |
| Tour and other | 236 | 231 | 226 |
| | <u>17,510</u> | <u>16,389</u> | <u>15,714</u> |
| Operating Costs and Expenses | | | |
| Cruise | | | |
| Commissions, transportation and other | 2,359 | 2,240 | 2,161 |
| Onboard and other | 587 | 553 | 526 |
| Payroll and related | 2,107 | 1,993 | 1,859 |
| Fuel | 1,244 | 915 | 1,249 |
| Food | 1,031 | 1,005 | 981 |
| Other ship operating | 3,010 | 2,525 | 2,516 |
| Tour and other | 163 | 152 | 155 |
| | <u>10,501</u> | <u>9,383</u> | <u>9,447</u> |
| Selling and administrative | 2,265 | 2,197 | 2,067 |
| Depreciation and amortization | 1,846 | 1,738 | 1,626 |
| Goodwill and trademark impairment | 89 | — | — |
| | <u>14,701</u> | <u>13,318</u> | <u>13,140</u> |
| Operating Income | <u>2,809</u> | <u>3,071</u> | <u>2,574</u> |

To develop its operating cost proxy, Mr. Fong multiplied \$1,211.95 by 2,000 average passengers. The total for this figure equals \$2.4 million or roughly \$2.5 million per ship. The 2,000 average passengers came from ORA's first data request to the Port District, question 9.

(c) Mr. Fong relied heavily on information provided by the Port District and BRG when developing his analysis. There was no communication between Mr. Fong and cruise ship executives or other individuals employed in cruise ship operations.

(d) Mr. Fong's model utilized Carnival Corporation's 2017 Consolidated Statements of Income Operating Costs and Expenses total from page F-2 in developing his cost estimates. The consolidated statement of income takes into account the corporation's entire revenue, expenses, and income including its subsidiaries. This would include lines of business, such as terminal operations, when deriving cost estimates.

(e) As stated in his testimony, Mr. Fong's model relies heavily on the Port District's assumptions and BRG's single year model to develop electric costs per call. Mr. Fong utilized Carnival Corporation's 2017 10K to develop an operating cost proxy. In developing ORA's operating cost proxy, Mr. Fong utilized an aggregate approach as described in question 14b.

- i.) Mr. Fong's operating cost proxy includes all energy costs regardless of the number of port calls the cruise makes. Mr. Fong's analysis reflects the incremental costs caused by shifting the Port District's rate schedule from TOU A to A6-TOU.
- ii.) Operating costs for days at sea would have been included in the operating cost per passenger defined by Mr. Fong in his testimony. Per disclosure in Carnival Corporation's 10K, operating costs include commissions, transportation and other expenses, onboard, payroll, fuel, food and other ship operating costs.
- iii.) BRG put a 33% cost premium between homeport and visits per call (BRG's variable homeport cost is \$81,188 and variable visit cost is \$54,265 in its economic shore power model.). Mr. Fong did not explicitly differentiate between visitation calls and homeport calls. However, Mr. Fong did present a scenario that is far more conservative than the base case by decreasing the operating cost proxy per ship of \$2.5 million by 50% and increasing the price elasticity of demand to -1.5 in his testimony.

(f) Mr. Fong relied heavily on BRG, the Port District, and Carnival Corporation's 2017 10K in developing his estimate.

(g) Mr. Fong relied heavily on BRG, the Port District, and Carnival Corporation's 2017 10K in developing his estimate.

Q15. Please state whether ORA examined the impact of the start of the CARB shore-power regulation on Port District vessel call and passenger volumes and provide any analysis of such impact performed or reviewed by ORA. If this factor was not examined, please explain why not?

Answer 15

ORA did not examine the impacts of the CARB shore-power regulation on Port District vessel call and passenger volumes because these regulations apply to all Ports in California. As such, they impose an independent regulatory requirement on the District; therefore, the environmental benefits associated with new CARB regulations do not justify the Shore Power Rate Discount. (See ORA Testimony Chapter 1 Chris Danforth, p. 1-4.)

Q16. With regard to Mr. Fong's testimony (Chapter 2, fn. 44) stating:

ORA's price elasticity estimate of -1.0 was taken from BRG's

testimony and reflects what ORA believes to be the most conservative estimate available. Based on ORA’s previous

analysis of price elasticity with respect electric rates, ORA concludes that this estimate could be made lower.

Please provide the referenced “previous analysis”, as well as any studies reviewed or conducted relevant to the price elasticity of cruise ship visits.

Answer 16

Due to the unique nature of cruise ship visits, ORA deferred to BRG’s expertise in its development of the price elasticity of demand for cruise ship visits. ORA additionally developed an increased price elasticity of demand of -1.5 in its testimony utilizing BRG’s initial development of a price elasticity of demand of -1.0 as a proxy.

ORA’s “previous analysis” of the price elasticity of demand referred to the price elasticity of demand study on residential electric rates that are substantially lower than the Port District. (See A.17-12-012 Southern California Edison (SCE) Rate Design Window Application, Volume 1, p. 31.) ORA recognized that there are differences between the cruise industry and residential rates and therefore deferred to BRG’s analysis of a -1.0 price elasticity of demand.

*Table VI-2
Opt-in TOU Pilot Peak Period Pricing, Elasticity
and Peak Load Reduction Estimates by Rate*

| | SCE Opt-in 1 | SCE Opt-in 2 | PG&E Opt-in 1 |
|-------------------------------------------------------------------|--------------|--------------|---------------|
| Peak Period Price (¢/kWh) | 34.5 | 53.5 | 42.0 |
| Elasticities Using Marginal Price Above Baseline Quantiles | 0.09 | 0.02 | 0.10 |
| Peak Load Reduction Estimate | 4.4% | 4.2% | 5.8% |

Q17. ORA’s testimony describes its approach to elasticity (Chapter 2, Section II/A) as follows:

ORA combined the electric cost per visit with the operating cost proxy in order to determine the growth rate in overall operating costs between the two electric rates. Overall operating costs include both port costs that the cruise ship must pay to the District as well as internal costs related to the operation of the cruise vessel. Finally, ORA multiplied the growth rate by a price elasticity estimate to determine the percent decrease in visits for the District.

Please include any references supporting this approach; that is, including total operating cost for a business in the price elasticity with respect [sic] an individual purchase by that business.

Answer 17

ORA developed its electric cost per visit by utilizing BRG’s single year model found in BRG’s “CONFIDENTIAL – Shore Power 20170628 w. run info and working macros new rates.xlsx” utilizing TOU-A and A6-TOU tariff assumptions. Additionally, the annual electric number was taken directly from a generated output of BRG’s Sample Year tab in the model.

The operating cost proxy is explained in question 14b of this data response.

The price elasticity estimate of -1.0 was taken from BRG’s assumption in footnote 13 page 5 of Dr. Adam Borison’s testimony.

Q18. With regard to the testimony of Mr. Kuan, please provide a copy of the “in-depth analysis of the specialized EE proposal” reference at page 3-2, including all working papers, models or references used in such analysis.

Answer 18

As part of ORA’s analysis of the Specialized Energy Efficiency (EE) Proposal, ORA reviewed the confidential “Specialized Audit Results” spreadsheet and Exhibits 1-6 that SDG&E provided to ORA in response to ORA’s DR1 – Q1. ORA cross-referenced the EE measures that were identified as “specialized” with the detailed “Energy Efficiency Measure Energy Savings Summary” tables in each individual and confidential Audit Report labeled as Exhibits 1-6 provided by SDG&E. For each EE measure identified as “specialized” ORA compared the dollar amount in the “Estimated Net Cost” column to the dollar amount in the “Cost Savings” column, and also reviewed the “Estimated Payback Period” column.

Specific to a cost-effectiveness analysis of the specialized EE proposal, ORA reviewed the forecasted TRC and PAC estimated values provided by SDG&E in response to ORA’s DR11 – Q2. ORA found that all but 3 of the 18 listed EE measures in the “CETResults” spreadsheet had TRC values below 1, and collectively, the specialized EE measures had a TRC Ratio of 0.55. This indicates that the costs of the measures, including both participants’ and the utility’s costs,¹ outweigh their benefits, in terms of avoided costs of supplying energy.

In addition, ORA reviewed the confidential “Specialized Audit Results” spreadsheet, SDG&E’s response to ORA’s DR1 – Q3, SDG&E’s response to ORA’s DR11 – Q1, and the “2017 Statewide Customized Offering Procedures Manual for Business” (see Attachment 11) to analyze and review the Application’s justification for proposing specialized EE measures and seeking incremental funding for those measures here, rather than incorporating those specialized EE measures into SDG&E’s existing EE portfolio.

Q19. Please identify the specific SDG&E Rate from which Mr. Danforth’s 80.7% to 85.1% discount figures have been calculated. If the discount figure was calculated using Primary rate variant, did Mr. Danforth or anyone at ORA conduct any analysis of the

¹ TRC costs encompass the net present value of the net costs to participants for installed measures over the measure life plus all the costs incurred by the program administrator.

discount level from the Transmission or Primary Substation variant of the rate? If so, please provide any such analyses.

Answer 19

As indicated in Mr. Danforth's testimony, these percentages were calculated from bill information contained in the testimony of SDG&E's witness Cynthia Fang. The rates themselves contain the discounts associated with taking service on the primary level rather than at the secondary level. ORA has not calculated what the discount would be for taking service on a transmission rate because SDG&E did not propose to offer the Port the option of taking service at the transmission level. If it did, then the cost associated with the primary distribution feeder on which the Port takes service would have to be recovered through a special facilities charge. ORA does not have the information to determine what such a special facilities charge would be.

Q20. In ORA's original Protest, ORA referenced the possibility of consolidating San Diego Port's Accounts into one combined demand. Please provide any examples of other customers taking this approach or any analysis of this approach for SDUPD.

Answer 20

Aggregating the demand for other customers taking service under multiple accounts would require consolidated billing. To ORA's knowledge, SDG&E does not offer consolidated billing to other customers on its system.

Q21. In ORA's original Protest, ORA mentioned the potential applicability of transportation electrification rates to shore power rates. Please provide any examples of non-EV applications of these rates or any analysis of this approach at the Port of San Diego.

Answer 21

ORA is neither aware of any non-EV applications of the approach that has been applied to electric vehicles nor has it investigated applying such an approach to the Port. ORA points out that SCE's approach to transportation electrification rates, as explained in ORA's protest on p. 11, is based on reducing non-coincident demand charges by recovering the time-related demand costs through TOU energy rates. In its protest on SDG&E's demand charge study, ORA proposed developing the information that would be required to apply SCE's approach to all of SDG&E tariffs. (See A.15-04-012, Advice Letter 3166-E.) The Commission has not yet issued a resolution on this protest. As ORA highlights in its testimony in this proceeding (p. 1-3, lines 4-6), if the demand charge study allows a reduction in demand charges in the next GRC, that would automatically be incorporated in ORA's phase-in plan.

Exhibit 2
Prepared Rebuttal Testimony
of
Stephen Shafer

UCAN Narrative Responses to
SDUPD Data Request
(May 11, 2018)

1. Please provide, on an ongoing basis, copies in Microsoft Word of all data requests made by all other parties in this proceeding to UCAN. Further, please also provide on an ongoing basis copies (either in Microsoft Word, Excel or in the same format as provided to the requesting party), all of the ORA responses to all data requests in this proceeding.

Response: UCAN understands this question to refer to all of the data requests made to UCAN in this proceeding and all of the UCAN responses to these requests. Thus far, UCAN has received no data requests other than the first data request made by SDUPD. UCAN will provide copies to SDUPD of any future data requests made to UCAN and of UCAN's responses to these requests.

2. Please provide all workpapers and supporting documentation related to Mr. Charles' April 25, 2018 testimony submitted in A.17-09-005.

Response: Workpapers support Mr. Charles' testimony are being provided via file-sharing link. Other documentation supporting Mr. Charles' testimony has been served as attachments to his testimony or is publicly available.

3. Please provide copies of all prepared testimony listed on Mr. Charles' Statement of Qualifications included with the April 25, 2018 testimony.

Response: All prepared testimony listed on Mr. Charles' Statement of Qualifications included with his testimony is being provided via file-sharing link.

4. Please identify any graduate level courses taken by Mr. Charles, if any, and the educational institutions at which such courses were taken.

Response: Mr. Charles' educational background and professional experience are accurate as presented in his Statement of Qualifications provided in Attachment A of his April 25, 2018 testimony.

5. Please indicate whether Mr. Charles has any experience with cruise ship or maritime operations and, if so, explain in detail, the level of experience and where and how gained.

Response: Mr. Charles does not have experience with cruise ship or maritime operations.

6. Please state whether Mr. Charles conducted any study or analysis of rates charged for shore power at other ports in or outside California? If so, please provide any such study or analysis along with any workpapers.

Response: Mr. Charles has not conducted such a study or analysis.

7. With regard to Mr. Charles' testimony (Section D):

(a) Please state whether Mr. Charles has conducted any study to support his assertion that the proposed discount to SDUPD would result in a competitive advantage over other California ports. If so, provide any such study.

Response: UCAN objects to this question to the extent that it misstates Mr. Charles' testimony. Mr. Charles' testimony does not conclusively assert that SDG&E's proposed rate discount to SDUPD would result in a competitive advantage; his testimony asserts that SDG&E's proposed rate discount to SDUPD could be used to gain a competitive advantage over other California ports due to the design of the discount as proposed by SDG&E and based on information provided by SDUPD identifying other California ports as potential sites for cruise visits in the event of a reduction in cruise ship visits to San Diego (Response of SDPD to UCAN-001 Question 6). Notwithstanding this objection, Mr. Charles has not conducted a study regarding any potential competitive advantage to SDUPD.

(b) Please indicate whether Mr. Charles believes that a difference in electricity costs could result in a cruise line choosing to use one port over another port.

Response: Mr. Charles expects that there are multiple factors that are evaluated together to determine which port a cruise line will use, including overall costs to dock at the port, customer preference, and location relative to other destinations. Electricity costs are one component of the overall docking costs. Depending on the balance of all the relevant factors, there may be times that a difference in electricity costs could result in a cruise line choosing to use one port over another port.

(c) Is it Mr. Charles' testimony that SDUPD would enjoy a competitive advantage over other California ports if SDUPD's shore power rate, even after discounts, was higher than other ports in California? Please explain your answer.

Response: Mr. Charles' testimony does not make such a statement. It is Mr. Charles' testimony that SDG&E's proposed rate discount for SDUPD could allow SDUPD to gain a competitive advantage over other California ports the design of the discount as proposed by SDG&E.

(d) To the extent that other ports in California or outside of California receive discounted electricity rates such that the rate is lower than SDUPD's rate, have these other ports obtained a competitive advantage over SDUPD? Please explain your answer.

Response: UCAN objects to this question to the extent that it calls for speculation. Notwithstanding this objection, discounted electricity rates might be able to provide a competitive advantage to particular port, depending on the structure and size of the discount.

8. Has Mr. Charles or UCAN conducted or reviewed CTM analyses for rates charged to other ports for shore power service? If so, please provide all such analyses and any supporting workpapers and explain all underlying assumptions.

Response: Mr. Charles and UCAN have not conducted or reviewed any such analyses.

9. Has Mr. Charles or UCAN conducted or reviewed CTM analyses conducted with respect to a single dedicated meter at a customer rather than the customer as a whole. If so, please provide all such analyses and any supporting workpapers and explain all underlying assumptions.

Response: Mr. Charles and UCAN have not conducted or reviewed any such analyses.

10. The Port of Long Beach's Settlement Agreement allows for the provision for various rate discounts and specific rate treatments for existing and new Maritime Entities' accounts.

(a) To your knowledge, was a CTM analysis conducted for each individual customer rate or for the Port of Long Beach's maritime business as a whole (its primary business)?

Response: It is UCAN's understanding that the Port of Long Beach Settlement Agreement established the methodology for incorporating CTM into rate discount calculations in Appendix B of the settlement agreement. It is UCAN's understanding that Appendix B of the Settlement Agreement provides for CTM-based bill discounts using the bill calculated under the Otherwise Applicable Tariff and marginal cost, on which basis UCAN understands that the Settlement Agreement's CTM analysis applies at the billing account level. UCAN does not know how many individual customers are billed under each billing account.

D.14-03-007 adopting the settlement agreement and the settlement itself are available from the Commission website via the following links:

D.14-03-007:

<http://docs.epuc.ca.gov/PublishedDocs/Published/G000/M089/K019/89019480.PDF>

D.14-03-007 Attachment 1 (Settlement Agreement):

<http://docs.epuc.ca.gov/PublishedDocs/Published/G000/M087/K591/87591014.pdf>

(b) If not, why wasn't a CTM analysis required for each individual rate?

Response: See response to question 10(a). In addition, UCAN notes that settlement discussions that led to the establishment of the Port of Long Beach Settlement Agreement and its CTM requirements are confidential.

(c) Does UCAN have any information on the loads included in that agreement, or on the base or discounted shore power rate?

Response: The decision adopting the Port of Long Beach Settlement agreement, D.14-03-007, states that "The Port projects that maritime transportation electrification will result in major load growth at the Port over the next 20 years, moving from the current 55 megawatts (MW) to a projected 244 MW by 2030" (see D.14-03-007, page 3).

SCE's Schedule ME implements the rate discount options established in the Settlement agreement and provides details of the base and discounted shore power rates for the Port of Long Beach. Schedule ME is available via the following link:

SCE Schedule ME: <https://www.sce.com/NR/sc3/tm2/pdf/CE358.pdf>

11. Mr. Charles's testimony states (page 3): "Any discounted rate option should be limited to a transition period of no more than five years and to the cruise terminal's existing load..." Please

provide any workpapers analyzing the impact of different transition periods and load limitations. If no analysis was performed, please explain why not.

Response: Mr. Charles' recommendation of a five year transition period is consistent with the rate discount period proposed by SDG&E, and his recommendation for a load limitation is based on his stated concern regarding the Commission setting a precedent for using electricity rates to support one region within California at the expense of another (see UCAN-01, page 21 at lines 17-19). He has not, therefore, analyzed different transition periods or load limitations.

Exhibit 3
Prepared Rebuttal Testimony
of
Stephen Shafer

SoCal Edison Schedule ME Tariff
Maritime Entities at the Port of Long Beach
Advice Letter 3024-E
(April 14, 2014)



Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 1

APPLICABILITY

This Schedule is applicable to Maritime Entities at the Port of Long Beach (Port), as further defined below, for the purposes of implementing electric infrastructure and rate discounts as authorized and directed in Decision (D.)14-03-007. SCE will provide service under this Schedule until April 14, 2024, and thereafter for additional five-year periods until December 31, 2037, pursuant to the automatic renewals specified in D.14-03-007. However, service under this Schedule will terminate should the 2012 Service and Operations Contract between SCE and the City of Long Beach (as approved by the Commission on May 9, 2013 in Resolution E-4573) be terminated for any reason.

For the purposes of differentiating between Existing Load and New Load, Maritime Entities taking service under this Schedule must establish, where applicable, Base Period Usage, as defined in Special Condition 1.a of this Schedule.

TERRITORY

SCE's service territory within the real property owned in fee by the City of Long Beach within or adjacent to the Harbor District, including real property in fee acquired by the City of Long Beach within or adjacent to the Harbor District, but excluding Pier H.

RATES

Maritime Entities served under this Schedule will be billed according to their Otherwise Applicable Tariff (OAT) subject to the following adjustments:

1. Existing Load.
 - a. 50 kV and below: For Existing Load served at voltages of 50 kV and below, monthly metered consumption up to and including the Base Period Usage is billed at the subtransmission voltage rates included in the customer's OAT plus the Imputed Added Facilities Amount, regardless of the voltage at which the Maritime Entity is actually served. If this calculation results in a monthly bill that exceeds the customer's OAT bill based on the actual service voltage rates, the charges billed to the customer will be based on the actual service voltage rates of the OAT only and will not include the Imputed Added Facilities Amount. The Maritime Entity will never pay a monthly bill for its account that exceeds the OAT bill at the actual service voltage rates. No CTM calculation or discount is applicable.
 - b. Above 50 kV: For Existing Load served at voltages above 50 kV (subtransmission voltages), monthly metered consumption up to and including the Base Period Usage will be billed at the subtransmission voltage rates included in the customer's OAT. No CTM calculation or discount is applicable. Maritime Entity accounts in this category that have associated existing Added Facilities Agreements that include facilities used to step down the voltage to actual voltages have the option of using Form 14-945 to elect to be billed for such Added Facilities at the Imputed Added Facilities Amount, as defined below.

(Continued)

(To be inserted by utility)
Advice 3024-E
Decision 14-03-007

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Megan Scott-Kakures
Vice President

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 2

(Continued)

RATES (Continued)

1. Existing Load. (Continued)

b. Above 50 kV. (Continued)

Customers have eight months from the original effective date of this Schedule to elect, on a going-forward basis, to have such Added Facilities billed at the Imputed Added Facilities Amount for the remainder of their existing Added Facilities Agreements. All other terms and conditions of the existing Added Facilities Agreements apply.

2. New Load. For all New Load of Maritime Entities, SCE will install and pay for 66 kV electric facilities to serve such New Load (i.e., the 66 kV electric facilities will not be considered Added Facilities under Rule 2.H), subject to the exceptions identified in Special Condition 2 below. New Load of Maritime Entities will be billed at subtransmission voltage rates unless the customer elects its OAT rate, in accordance with the provisions outlined below. Additionally, all New Load of Maritime Entities will receive a discount equal to 50 percent of the CTM provided by that New Load provided that the CTM is positive.

a. Served and billed at voltages of 50 kV and below: For New Load of Maritime Entities served and billed at voltages of 50 kV and below, monthly metered consumption in excess of the Base Period Usage is billed at the customer's OAT for the applicable service voltage. An Imputed Added Facilities Amount is not charged. The CTM for such New Load is calculated based on the OAT and Marginal Cost of Service at the applicable voltage.

b. Served and billed at voltages greater than 50 kV: For New Load of Maritime Entities served and billed at voltages greater than 50 kV (subtransmission), monthly metered consumption in excess of the Base Period Usage is billed at the subtransmission voltage rates of the customer's OAT. An Imputed Added Facilities Amount is not charged. The CTM for such New Load is calculated based on the subtransmission rate and Marginal Cost of Service at the subtransmission voltage, including the Imputed Added Facilities Charge.

c. Served at voltages of 50 kV and below and billed at subtransmission voltage rates: For New Load of Maritime Entities served at voltages of 50 kV and below and billed at subtransmission voltage rates, monthly metered consumption in excess of the Base Period Usage is billed not at the rates for the voltage at which the customer is served but at the subtransmission voltage rates plus the Imputed Added Facilities Amount. For example, a customer regularly served on TOU-8-Primary will be billed based on TOU-8-Subtransmission rates plus the Imputed Added Facilities Amount. The CTM for such New Load is calculated based on the subtransmission rate (including the Imputed Added Facilities Charge) and (i) Marginal Costs of Service at primary or secondary voltage for generation capacity (adjusted by the MGCC factor shown below), energy and customer costs, plus (ii) the sum of marginal distribution cost at the subtransmission voltage and the Imputed Added Facilities Charge. The Nonbypassable Rate Component voltage level for the purposes of calculating Marginal Cost of Service shall be subtransmission voltage.

(Continued)

(To be inserted by utility)

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 3

(Continued)

RATES (Continued)

- 3. Imputed Added Facilities Charge.....\$2.84/kW/month.
- 4. MGCC Factor.....50 percent.

SPECIAL CONDITIONS

1. Definitions. The following definitions are applicable to service provided under this Schedule.

- a. Base Period Usage (Existing Load): Base Period Usage is up to a 24-month average of each Service Account's historical monthly energy usage (kWh) and demand (kW and kVAR) by season and time-of-use (TOU) period, where applicable, and is computed by SCE in consultation with the customer using historical metered energy and demand data from the 24 months immediately preceding the original effective date of this Schedule. Base Period Usage amounts are calculated as follows:
 - (i) For energy (kWh) consumption, Base Period Usage is computed on an average hourly basis for each TOU period and season, where applicable, and for billing is expanded by the applicable number of hours in the billing period for each TOU period and season, where applicable. For accounts served on a Real Time Pricing (RTP) rate schedule, Base Period Usage for generation energy (kWh) is additionally computed on an average hourly basis for each day type (i.e., weekday or weekend) and season, and for billing is multiplied by the applicable number of hours in the billing period for each day type and season. (N)
 - (ii) Base Period Usage facilities-related demand (kW) is the average of the monthly maximum Billing Demand over the period specified above. The average facilities-related demand is calculated by season and is applied monthly. (T)
 - (iii) Base Period Usage time-related demand (kW) is the average of the monthly maximum Billing Demand by TOU period and season over the period specified above and is applied monthly. (T)
 - (iv) Base Period Usage reactive power demand (kVAR) is the average of the monthly maximum kilovar demand over the period specified above. The average reactive power demand is calculated by season and is applied monthly. (N)

(Continued)

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 4 (N)

(Continued)

SPECIAL CONDITIONS (Continued)

1. Definitions. (Continued)

a. Base Period Usage (Existing Load). (Continued)

If a Maritime Entity with Existing Load has at least 8 months but fewer than 12 months of historical data necessary to determine Base Period Usage, SCE will estimate the Maritime Entity's load characteristics for the purposes of determining Base Period Usage, including estimated demand and energy usage on a TOU and seasonal basis, using available data. That estimation shall be used as the Maritime Entity's Base Period Usage until a total of 12 months of recorded load data is available to more definitively establish the Maritime Entity's load characteristics. At that time, the Maritime Entity's Base Period Usage may be adjusted on a going-forward basis based upon metered consumption. For Maritime Entities with fewer than 8 months of the requisite historical data necessary to determine Base Period Usage, the Base Period Usage will be zero (all metered consumption on these accounts is defined as New Load). Base Period Usage may be adjusted per written agreement between SCE and the Maritime Entity using Appendix C of Form 14-945 to account for changes in load related to energy efficiency improvements or for other changes reasonable and consistent with the intent of D.14-03-007. Base Period Usage is established and billed as Existing Load for all applicable service accounts and sub-metered accounts, and is Site-specific. Discounts based on CTM are not applicable to Base Period Usage. If Service Accounts or sub-metered accounts with established Base Period Usage are reconfigured in any way, the Base Period Usage established for the original Service Account or sub-metered account will be used under the new configuration, unless changes are agreed to in writing between SCE and the Maritime Entity using Appendix C of Form 14-945. (L) (T) (L) (T)

(Continued)

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 5 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

1. Definitions. (Continued)

- b. Contribution to Margin (CTM): As calculated on a monthly basis for New Load only pursuant to Appendix A of Attachment 1 of D.14-03-007, CTM is defined as revenues from the Maritime Entity's OAT bill for New Load minus the Marginal Cost of Service to Maritime Entities for New Load. For the purposes of calculating the CTM for New Load served at primary or secondary voltages but billed at subtransmission voltage rates, the Maritime Entity's OAT bill is considered the bill at the subtransmission voltage rates plus the Imputed Added Facilities Amount. (L)
- c. Good Utility Practice: As defined in Section 2.15 of SCE's Wholesale Distribution Access Tariff.
- d. Imputed Added Facilities Amount: An amount calculated by multiplying the Maritime Entity account's monthly maximum non-coincident demand by the Imputed Added Facilities Charge as shown in the Rates section above. For eligible customers electing to have their existing Added Facilities billed at the Imputed Added Facilities Amount pursuant to the requirements of Rates Section 1.b above, the monthly maximum non-coincident demand used in the calculation of the Imputed Added Facilities Amount is capped at the seasonal facilities-related demand Base Period Usage. (N)
- e. Marginal Cost of Service to Maritime Entities: The calculation, on a monthly basis, of (i) the marginal generation, distribution, and customer costs of serving the Maritime Entity, including the MGCC Factor adjustment; (ii) the transmission rate components applicable to the Maritime Entity; and (iii) the sum of the remaining Nonbypassable Rate Components at their current values. The unit marginal generation capacity, distribution and energy costs are consistent with those adopted in SCE's most recent General Rate Case (GRC) Phase 2 decision, and will be made available to prospective or existing customers of this Schedule upon request, except that the marginal generation capacity cost is adjusted downward by the MGCC Factor shown in the Rates section above. To the extent a marginal cost floor is needed to assess CTM of Existing Load of Maritime Entities taking physical distribution service at primary or secondary voltage (Rates 1.a.), the marginal cost calculation applicable to such load should be the same as it is for customers served at voltages of 50 kV and below and billed at subtransmission voltage rates (Rates 2.c.). (N)

(Continued)

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 6 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

1. Definitions.(Continued)

- f. Marginal Generation Capacity Cost (MGCC) Factor: An adjustment to the marginal cost of generation capacity used to calculate the Marginal Cost of Service to Maritime Entities and CTM as shown in the Rates section above. The MGCC Factor is subject to review and adjustment at the conclusion of SCE's 2018 GRC Phase 2 proceeding, and again at the conclusion of alternate GRCs thereafter through December 31, 2037, pursuant to the requirements contained in D. 14-03-007.
- g. Maritime Entities: Container, stevedoring and shipping entities located within the real property owned in fee by the City of Long Beach within or adjacent to the Harbor District, including real property in fee acquired by the City of Long Beach within or adjacent to the Harbor District, but excluding Pier H. Entities other than container, stevedoring and shipping entities, such as those engaged in oil extraction activities, are not Maritime Entities.
- h. New Load: New Load is the difference between the monthly metered energy and demand and the Base Period Usage energy and demand, on a seasonal and TOU basis where applicable.
- i. New Small Load: Permanent and bona-fide New Load of a Maritime Entity projected to develop within a reasonable time to be less than 10 megawatts (MW), except that, if given all the facts pertinent to said New Small Load, it would be Good Utility Practice to serve that load at subtransmission voltage, then said load is not New Small Load and is treated instead as New Load (and is not subject to the second exception outlined in Special Condition 2 below).
- j. Nonbypassable Rate Components: All CPUC Reimbursement Fees, Public Purpose Program Charges, Nuclear Decommissioning Charges, DWR Bond Charges, New System Generation Charges, and any other rate components or charges approved from time to time by the Commission that cannot be discounted or bypassed.
- k. Redundant Facilities: Facilities that SCE will delineate as Redundant Facilities consistent with Good Utility Practice, to provide adequate, efficient, just and reasonable service. SCE shall give consideration to the requirement that land at the Port be used as efficiently as possible, the importance of a reliable supply of power at the Port, Port operations, and the importance of timely service to permanent and bona-fide loads of Maritime Entities. Examples of potential Redundant Facilities are second feed lines, looped systems, second substations, and duplicate transformation. However, delineation of whether such potential Redundant Facilities are actually Redundant Facilities shall be determined in accordance with the criteria described above.
- l. Site: The premises where SCE has installed electrical equipment such as meters or transformers.

(Continued)

(To be inserted by utility)

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Decision 14-03-007

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R.O. Nichols
Senior Vice President

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 7 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

2. For all New Load of Maritime Entities, SCE will install and pay for 66 kV electric facilities to serve such load (i.e., the 66 kV electric facilities will not be considered Added Facilities under Rule 2.H), subject to the following four exceptions:
 - a. Maritime Entity requests Redundant Facilities. All additional costs incurred by SCE to design, construct, operate and maintain Redundant Facilities will be borne by the Maritime Entity pursuant to the Added Facilities provisions of Rule 2.H.
 - b. New Small Load. The appropriate service voltage for New Small Load is determined consistent with Good Utility Practice to provide adequate, efficient, just and reasonable service, with consideration given to the requirement that land at the Port be used as efficiently as possible, to the importance of a reliable supply of power at the Port, to Port operations, and to the importance of timely service to permanent and bona-fide new loads of Maritime Entities. If the appropriate service voltage for New Small Load is less than 66 kV using Good Utility Practice, the costs of providing service in excess of the appropriate service voltage, including all additional costs incurred by SCE to design, construct, operate and maintain facilities to provide 66 kV service, will be borne by the Maritime Entity pursuant to the Added Facilities provisions of Rule 2.H. If the appropriate service voltage for New Small Load is 66 kV or higher using Good Utility Practice, the load is not considered New Small Load and the facilities are not considered Added Facilities under Rule 2.H.
 - c. As may in the future be agreed by SCE and the Port.
 - d. If the Maritime Entity declines 66 kV service.
3. Agreement. Eligible customers must complete and submit Form 14-945, Maritime Entity Election Form, to SCE in order to request and receive service under this Schedule. Service under this Schedule will become effective on the start of the next regularly scheduled billing period after SCE receives and verifies, where necessary, the information provided on Form 14-945.

(L)

(Continued)

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Schedule ME
MARITIME ENTITIES AT THE PORT OF LONG BEACH

Sheet 8 (N)

(Continued)

SPECIAL CONDITIONS (Continued)

- 4. Demand Response (DR) Programs. Customers receiving service under this Schedule are eligible to concurrently participate in DR programs. All terms and conditions of such DR programs shall apply, including the terms and conditions associated with dual participation. Customers receiving service under this Schedule who also participate in a DR program shall first have their bills calculated according to the Rates section above to determine the usage applicable to Existing Load and New Load. DR charges and/or credits shall then be calculated for Existing Load and New Load based on these determinations. The CTM calculation for New Load is performed after the application of any DR credits and/or charges. For the purpose of determining the generation time-related demand (kW) component of the CTM calculation for New Load, New Load is classified as either firm or non-firm. For New Load to be classified as non-firm, a Customer served under this Schedule must concurrently participate in Schedule BIP, CBP, GS-APS-E or any other DR program classified as providing supply benefits with a contractual obligation to reduce this load or allow SCE to control this load when a DR event is called for the relevant program. New Load that does not meet these criteria, including New Load that concurrently participates only in Schedule DBP, is classified as firm. In the event that a Customer chooses to dual participate in DR programs separately classified as providing load modifying benefits and supply benefits (e.g., Schedule CPP and BIP, or Schedules DBP and BIP), the DR program or programs classified as providing supply benefits shall take precedence and apply first to the applicable New Load, and such New Load shall be classified as non-firm. Any remaining New Load not applicable under the DR program or programs classified as providing supply benefits shall be classified as firm. (N)
- 5. Direct Access Customers. Discounts provided under this Schedule are calculated based on those rate components of the Maritime Entity's bill that correlate to services SCE provides to the Maritime Entity (as specified in the rate components listed in the customer's OAT). (L) (T)
- 6. This tariff is intended to implement, not contradict, D.14-03-007, as may be modified by the Commission in the exercise of its jurisdiction, and will be construed in accordance with that intent. (T)
- 7. All Other Applicable Tariffs Apply. All other applicable SCE tariffs apply to this rate schedule. (L) (T)

(Continued)

(To be inserted by utility)

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Exhibit 4
Prepared Rebuttal Testimony
of
Stephen Shafer

SoCal Edison
“Business Rate Basics:
Rate Schedule ME for Maritime Entities”

Rate Schedule ME for Maritime Entities



What Is Rate Schedule ME for Maritime Entities at the Port of Long Beach?

Rate Schedule ME provides electric infrastructure and discounted rates to applicable Maritime Entities (ME) at the Port of Long Beach (Port). The rate option was established on April 14, 2014, in part to facilitate expansion of our electric distribution facilities to serve projected load growth at the Port. SCE's electric infrastructure and discounted rates help keep the Port competitive; without them, SCE risked losing load to ports in other areas, which would have had the effect of spreading SCE's fixed costs of service over a smaller base of customer load.

Who Is Eligible?

Customers meeting the following three criteria are eligible to receive service under Schedule ME:

- The connected load of a specific service account is engaged in container, stevedoring, or shipping activities (*e.g., lighting, office, oil extraction, and other general service are not eligible, nor are oil extraction activities*)
- Service account is located within the real property inside the City of Long Beach within or adjacent to the Harbor District, with the exception of Pier H.

For more information about the Schedule ME tariff and eligibility, please visit sce.com/wps/portal/home/regulatory/tariff-books/rates-pricing-choices/other-rates.

What Are the Benefits Of the Rate Schedule ME?

Benefits vary based on a number of factors, including but not limited to service voltage, historical demand and usage, amount of new load, and any existing added facilities charges.

In general, the rate offers:

- A **Contribution to Margin (CTM)** discount for certain types of **New Load**
- Accounts Served at ≤ 50 kV and Below: Option to pay **Existing Load** at sub-transmission rates, plus **Imputed Added Facilities (IAF) amount** in lieu of the served voltage rates (i.e., secondary or primary)
- Accounts Served at > 50 kV with Previously Existing Added Facilities Agreements*: Option to pay **IAF amount** in lieu of existing **Added Facilities Agreements (AFA) charges**
- Under certain conditions, SCE will install and pay for 66 kV electric facilities.

Important Terms:

- Existing Load vs. New Load
- Contribution To Margin (CTM)
- Imputed Added Facilities (IAF)

* Only applicable to AFAs that include facilities used to step down the voltage to actual voltages are eligible for this option.

Rate Schedule ME for Maritime Entities

Existing Load vs New Load

Existing Load, also known as Base Period Usage (BPU), is the installed service's average usage, demand, and kVAR by season and TOU period for the 24 months immediately preceding the effective date of the rate (April 14, 2014).

New Load is any usage, demand, and kVAR exceeding the BPU.

Example



Specific BPU tariff provisions apply for customers with <12 months of usage data, including the provision that all load is considered New Load for customers with <8 months of usage data (i.e., BPU is set at zero).

Contribution to Margin (CTM)

Calculated each monthly billing period, and only applicable to New Load, the CTM is the difference between your OAT bill (as defined in the tariff) for New Load and the Marginal Cost of Service for the New Load of Maritime Entities. When the CTM is positive, a discount of 50% of the CTM is applied to your bill.

CTM Discount Example

| Positive CTM Scenario | | Negative CTM Scenario | |
|---------------------------------------|-------------|-------------------------------|--------------|
| OAT Bill | \$100 | OAT Bill | \$100 |
| Marginal Cost | \$80 | Marginal Cost | \$110 |
| Monthly CTM (\$100 - \$80) | \$20 | Monthly CTM (\$100 - \$110) | \$10 |
| 50% CTM Discount (\$20 * 50%) | \$10 | No Discount | \$0 |
| Discounted Bill (\$100 - \$10) | \$90 | Customer Pays OAT Bill | \$100 |

Imputed Added Facilities (IAF)

The IAF amount is calculated by multiplying the monthly metered demand by the IAF charge (\$2.84).

How Is the Imputed Added Facilities Calculated?

$\$2.84 \times \text{Metered kW per month}$

Example IAF Option Calculation for a Category B Account

| | | |
|--------------------------|----------------------------------------|---------------|
| BPU kW 300 | Existing AFA = \$2000 per month | |
| | Customer pays: | Savings: |
| Monthly kW 200 | IAF = \$2.84 X 200 = \$568 | \$1432 |
| Monthly kW 500 | IAF = \$2.84 X 300 = \$851 | \$1148 |

For >50kV customers that elect to have their existing AFAs billed based on the IAF charge, the IAF amount is capped at the seasonal FRD BPU — meaning these customers will never pay more than $\$2.84/\text{kW} \times \text{the seasonal FRD BPU}$.





Business Rate Basics

Rate Schedule ME for Maritime Entities

Accounts ≤ 50 kV, Existing & New Load

Existing Load (i.e., BPU): Your account is billed the lower of

- Your served voltage rates

OR

- The sub-transmission voltage rates of your OAT + the IAF amount

New Load: You have the option to elect to pay either

- Your served voltage rates

OR

- The sub-transmission voltage rates of your OAT + the IAF amount
- ✓ The default option for New Load is sub-transmission voltage rates + IAF
- ✓ Customers may change their New Load rate election after 12 months (Rule 12)
- ✓ NOT eligible to pay IAF option in lieu of existing Added Facilities Agreement charges (i.e., no changes to existing AFAs)

Accounts > 50 kV, Existing Load (i.e., BPU)

There are no changes to your energy bill.

If you have accounts that have associated existing Added Facilities Agreements (AFA) for facilities used to step down voltage, you have the following options:

- **No Change Option:** Continue to pay existing AFA charges
- Pay the **IAF Option** in lieu of existing AFA charges
- ✓ Change is effective on a going-forward basis and continues for the remainder of the AFA contract term
- ✓ If you elect to be removed from Schedule ME, you will continue to be billed the IAF amount ($\$2.84/\text{kW} \times$ the lower of either the metered demand or the seasonal FRD BPU demand)
- ✓ IAF option must be chosen no later than December 14, 2014

Accounts > 50 kV, New Load

- Applies to all usage, demand, and kVAR that exceeds the BPU, per billing period
- You will continue to be billed at sub-transmission rates with a CTM discount, if applicable

Frequently Asked Questions

I have a facility within the Port boundaries. Why can't my account be on the ME rate?

Schedule ME is only for accounts with load associated with **container, stevedoring, and shipping** activities.

Will my Base Period Usage (BPU) ever change? Is the IAF Charge of $\$2.84/\text{kW}$ fixed?

Your BPU is meant to remain fixed, but may be adjusted under certain circumstances based on written agreement between you and SCE. The IAF Charge of $\$2.84/\text{kW}$ is fixed.

How do I enroll in schedule ME?

Contact your SCE Account Manager. You will need to make certain elections and sign Form 14-945, which will be provided to you by your account manager. Form 14-945 will include the calculated BPU for each of your eligible accounts.

To learn more about Schedule ME, please contact your SCE Account Manager, visit sce.com, or call 1-800-990-7788.

This rate sheet is meant to be an aid to understanding SCE's Rate Schedule ME. It does not replace pricing information contained in the CPUC-approved tariffs. Please refer to the tariffs for a complete list of terms and conditions of service, which can be viewed online at sce.com/regulatory.

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