

# Stakeholder Comments Template Review TAC Structure Revised Straw Proposal

This template has been created for submission of stakeholder comments on the Review Transmission Access Charge (TAC) Structure Revised Straw Proposal that was published on April 4, 2018. The Straw Proposal, Stakeholder Meeting presentation, and other information related to this initiative may be found on the initiative webpage at:

 $\underline{http://www.caiso.com/informed/Pages/StakeholderProcesses/ReviewTransmissionAccessChargeSt}_{ructure.aspx}.$ 

| Submitted by             | Organization         | Date Submitted |  |  |  |  |
|--------------------------|----------------------|----------------|--|--|--|--|
| Steve Hance 408-640-6894 | Silicon Valley Power | 05/01/2018     |  |  |  |  |

Upon completion of this template, please submit it to initiativecomments@caiso.com.

Submissions are requested by close of business on April 25, 2018.

Please provide your organization's comments on the following issues and questions.

## Hybrid billing determinant proposal

- 1. Does your organization support the hybrid billing determinant proposal as described in the Revised Straw Proposal?
  - Silicon Valley Power (SVP) generally supports the CAISO's hybrid billing determinant proposal, with the following caveats described in the comment areas below.
- 2. Please provide any additional general feedback on the proposed modification to the TAC structure to utilize a two-part hybrid billing determinant approach.
  - SVP believes the hybrid billing determinant proposal results in allocation of HV TAC that better aligns with cost causation than does the current volumetric-only method. Two very significant changes have taken place since the original, PTO-based, volumetric billing determinant was chosen that make the change from a volumetric-only rate to a hybrid volumetric-demand rate necessary and just and reasonable.
  - First, the CAISO now utilizes a region-wide HV TAC vs. the original PTO specific TAC whereby such regionalization has resulted in HV TAC costs that have benefited lower load

factor UDCs at the expense of higher load factor UDCs without comparable benefits. The hybrid billing determinant will more appropriately align these benefits and costs than staying with the current volumetric-only approach.

Second, the build out of a significant amount of customer-sited DG, mainly roof top solar, shifts costs, under today's volumetric rate, from UDCs with heavy Distributed Generation (DG) development to UDCs without the same level of DG development taking place in their service territories. The hybrid billing determinant would better align the costs associated with the HV transmission system with the non-energy related benefits provided by the system to customers of varying load factors.

# Determining components of HV-TRR to be collected under hybrid billing determinants

- 3. Does your organization support the proposal for splitting the HV-TRR for collection under the proposed hybrid billing determinant using the system-load factor calculation described in the Revised Straw Proposal?
  - Yes. SVP supports the proposal for splitting the HV-TRR under the proposed hybrid billing determinant using the system-load factor calculation.
- 4. Please provide any additional specific feedback on the proposed approach for splitting the HV-TRR costs for the proposed hybrid billing determinant.

SVP has no additional specific feedback on this issue at this time.

# Peak demand charge measurement design for proposed hybrid billing determinant

- 5. Does your organization support the proposed 12CP demand charge measurement as described in the Revised Straw Proposal?
  - SVP understands the rationale for the CAISO choosing the 12CP method in the latest version of the draft straw proposal. However, because the 12 CP method can mute the price signal regarding the drivers for most transmission planning decisions and costs, SVP would prefer a 4 CP method or other cluster-of-peak-hours method as described in SVP's prior comments. If CAISO proceeds with a 12 CP method, SVP suggests modifications to the CAISO's 12CP method which result in cost allocations that would better align with desired end use customer behavior, resulting in more efficient use of the grid, as described in our response to Item #6 below.
- 6. Please provide any additional feedback on the proposed design of the peak demand charge aspect of the hybrid billing determinant.
  - SVP suggests looking at the advent of end-use customer-sited energy storage as an example of what could happen in varying months under various rate designs. In most cases the end-use customer is billed both a demand charge and an energy charge by their UDC, and the end-use customer would most likely operate an energy storage system to reduce its UDC bill. Such end-use customers might attempt to avoid their demand rate component by looking at discharging their energy storage system to shave their individual metered demand and not necessarily during the time periods that would provide the most value to the market or interconnected electric system. If the CAISO moves to a 12CP hybrid allocation approach,

there will be an incentive from the UDC perspective to modify rates such that end-use customers would be rewarded for reducing demand during the estimated CP periods of a particular month. While this incentive might work, there will be certain situations that arise that will likely result in end-use customer behavior not necessarily being as productive as it could be if the 12CP method was appropriately modified.

SVP suggests looking at September 1, 2017 as an example of what could happen under the new hybrid TAC rate design. For any interested end-use customer looking at the total CAISO load on this day it would be reasonable to assume that for the remaining days in September the CAISO would not set a new peak, and further demand reduction would not avoid any allocation of demand based charges. SVP suspects that the desired behavior most UDC's would want from their end-use customer base is to maximize the use of energy storage or demand response within the distribution system to avoid wholesale energy and demand charges, and from a HV transmission perspective to avoid the construction of what may be unneeded new transmission lines or upgrades. Since UDCs generally pass through wholesale costs to their end-use retail customers, anything that can be done from a wholesale rate design perspective that causes desired behavior from a retail customer should be pursued.

One issue with retail rate design is the desire to keep it sufficiently simple such that the customer is able to understand their rate and reliably predict what their costs may be going forward. On the wholesale side of the business, utilities are not as constrained with simplicity since they tend to have experts with core business knowledge, and thus shouldn't handcuff themselves with a cost allocation that is overly simplistic if a better, more efficient, choice is available.

Questions that should be asked and answered about the 12 CP option:

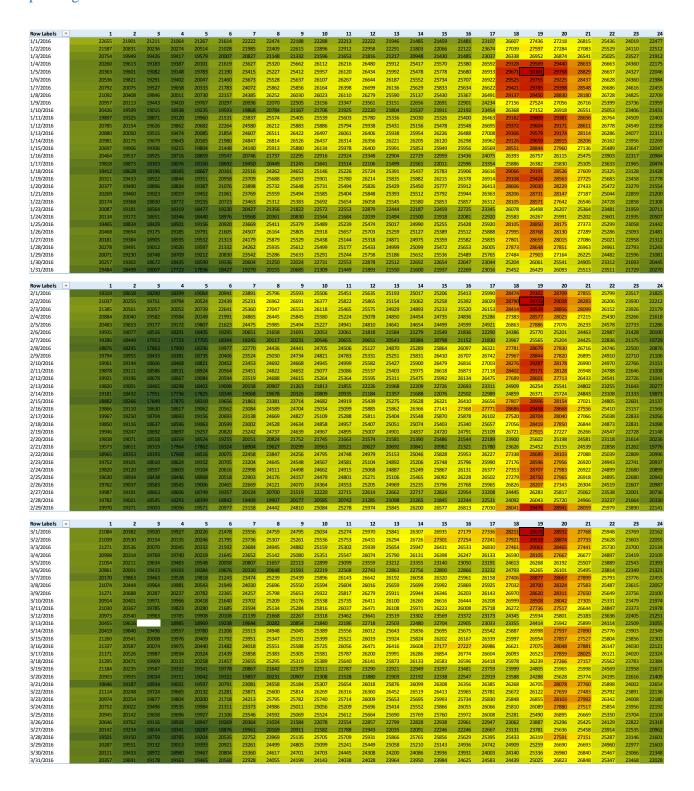
- 1. Is the value of energy storage or demand response equal in all months? From a transmission planning perspective, transmission is built to reliably serve the annual peak load. But from a transmission operation perspective, maintenance outages for both generation and transmission facilities will cause all monthly peaks to be a concern even though system peaks during that month may be significantly below the annual system peak.
- 2. If the answer to question 1 is "no", is there a numerical method that could be used to proportion the demand component of the hybrid TAC billing determinants that more equitably apportions the TRR demand component of the TAC to months that the CAISO would desire more demand response or energy storage behavior?

SVP attempts to answer the second question by creating a graphic representation of CAISO total demand using 2016 hourly data and excel conditional formatting to illustrate periods of time throughout each month where it would appear peak shaving would be desirable. The conditional formatting uses the color gradient scale with the midpoint (yellow) set at 90% such that all hourly loads below 90% of the monthly peak demand show as green-to-yellow while all hourly loads with in the top 10% of the system peak show as orange-to-red.

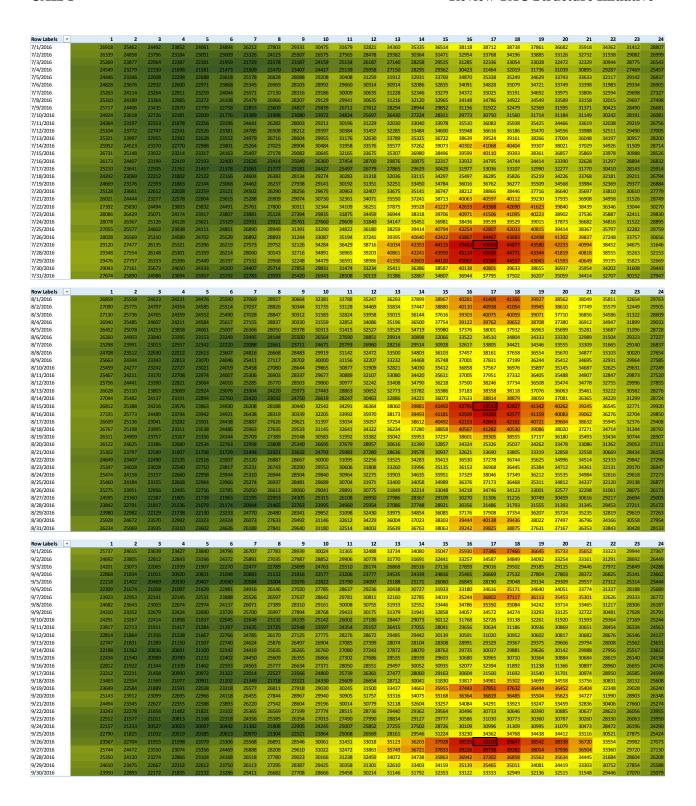
SVP provides this information to assist the CAISO and its stakeholders in considering if the 12CP method should be improved upon and appropriately adjusted.

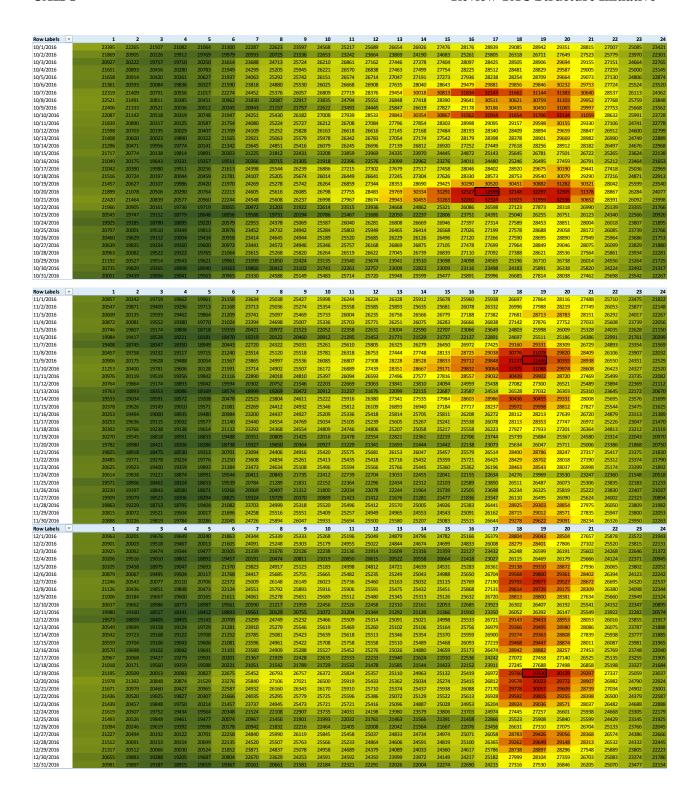
NOTE: The information below depicts one illustration for each month of 2016, starting with data for January and ending with December. SVP notes that the summer months' peaking hours

(colored orange to red) have substantially higher MW when compared to the other months' peaking hours.



| Row Labels             | ~ | 1              | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | 13             | 14             | 15             | 16             | 17             | 18             | 19             | 20             | 21             | 22             | 23             | 24             |
|------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 4/1/2016<br>4/2/2016   |   | 20143<br>20255 | 19485<br>19643 | 19101<br>19109 | 19304<br>19067 | 19666<br>19181 | 20938<br>19606 | 23007<br>20495 | 24015<br>20920 | 24237<br>21532 | 24316<br>21963 | 24449<br>22234 | 24441<br>22372 | 24360<br>22262 | 24070<br>21932 | 24077<br>22257 | 23991<br>22367 | 24011<br>22810 | 24087<br>22724 | 24568<br>23226 | 25792<br>24730 | 26292<br>25228 | 25144<br>24072 | 23224<br>22492 | 21431<br>20822 |
| 4/3/2016               |   | 19938          | 19124          | 18608          | 18549          | 18614          | 18824          | 19210          | 19390          | 20438          | 20531          | 21063          | 21246          | 21328          | 21157          | 21488          | 22041          | 22430          | 22941          | 23831          | 25338          | 25886          | 24432          | 22919          | 21085          |
| 4/4/2016<br>4/5/2016   |   | 19822<br>20683 | 19461<br>19937 | 19013<br>19337 | 19255<br>19309 | 19814<br>19677 | 20801<br>20945 | 22715<br>23075 | 23873<br>24102 | 24408<br>24745 | 24801<br>25438 | 25176<br>26106 | 25358<br>26396 | 25449<br>26643 | 25380<br>26685 | 25570<br>27022 | 25637<br>27313 | 26332<br>27862 | 26713<br>27797 | 27102<br>27872 | 28086<br>28740 | 28230<br>28883 | 26364<br>26827 | 23974<br>24518 | 21785<br>22284 |
| 4/6/2016               |   | 20821          | 20127          | 19435          | 19620<br>20437 | 20201          | 21424          | 23429          | 24471          | 25677          | 26293          | 27040          | 27791          | 28200          | 28514          | 28769          | 29385          | 30202          | 30031          | 29975          | 30352          | 30317          | 28173          | 25977          | 23621          |
| 4/7/2016<br>4/8/2016   |   | 21734<br>20950 | 20940<br>20372 | 20308<br>19780 | 19933          | 20896<br>20407 | 22129<br>21720 | 23979<br>23741 | 24951<br>24738 | 25378<br>25243 | 25742<br>25692 | 26180<br>25885 | 26166<br>25850 | 26107<br>25676 | 25896<br>25276 | 25992<br>25222 | 25838<br>25163 | 26045<br>25312 | 26193<br>25405 | 26777<br>25896 | 27734<br>26930 | 28124<br>27185 | 26338<br>25859 | 24620<br>24263 | 22579<br>22541 |
| 4/9/2016<br>4/10/2016  |   | 20824<br>20328 | 20229<br>19510 | 19471<br>18893 | 19467<br>18798 | 19518<br>18897 | 20048<br>19094 | 20483<br>19342 | 20732<br>19451 | 21319<br>19989 | 21839<br>20544 | 22244<br>21056 | 22301<br>21196 | 22232<br>21253 | 21966<br>21039 | 21873<br>21153 | 21901<br>21588 | 22216<br>22133 | 22565<br>22472 | 23564<br>23514 | 24810<br>25134 | 25445<br>25608 | 24262<br>24318 | 23002<br>23010 | 21566<br>21307 |
| 4/11/2016              |   | 19854          | 19346          | 18907          | 19151          | 19700          | 21126          | 22930          | 23937          | 24301          | 24614          | 24899          | 24967          | 24905          | 24594          | 24594          | 24830          | 25271          | 25482          | 26284          | 27356          | 27751          | 26009          | 24097          | 22099          |
| 4/12/2016<br>4/13/2016 |   | 20554<br>20657 | 19917<br>19948 | 19365<br>19329 | 19581<br>19305 | 20084<br>19712 | 21367<br>20994 | 23134<br>22766 | 24108<br>24128 | 24456<br>24662 | 24912<br>25083 | 25222<br>25260 | 25217<br>25552 | 25139<br>25180 | 24891<br>25676 | 24854<br>25875 | 25008<br>25907 | 25578<br>25910 | 25726<br>25515 | 26080<br>25403 | 27073<br>26355 | 27630<br>26936 | 25917<br>25347 | 24048<br>23317 | 22118<br>21582 |
| 4/14/2016              |   | 20570          | 19966          | 19364          | 19350          | 19809          | 20921          | 22805          | 24058          | 24790          | 25361          | 25270          | 25500          | 25509          | 25460          | 25485          | 25707          | 25561          | 24979          | 25076          | 26096          | 26620          | 25155          | 23305          | 21578          |
| 4/15/2016<br>4/16/2016 |   | 20844<br>20588 | 20091<br>19743 | 19463<br>19165 | 19440<br>18929 | 19551<br>19033 | 20795<br>19494 | 22683<br>20176 | 24032<br>20768 | 24675<br>21682 | 25318<br>22612 | 25378<br>22732 | 25463<br>22898 | 25454<br>23223 | 25538<br>23100 | 25577<br>23355 | 25720<br>23945 | 25498<br>24105 | 24956<br>24072 | 24788<br>24144 | 25711<br>25130 | 26148<br>25682 | 24991<br>24464 | 23683<br>22964 | 22059<br>21452 |
| 4/17/2016              |   | 20414          | 19533          | 18845          | 18723          | 18594          | 18905          | 19278          | 19768          | 20840          | 22054          | 22144          | 22700          | 23502          | 23890          | 24098          | 24937          | 25259          | 25402          | 25307          | 26315          | 26424          | 24941          | 23407          | 21515          |
| 4/18/2016<br>4/19/2016 |   | 20428<br>21840 | 19975<br>21095 | 19417<br>20326 | 19416<br>20159 | 20187<br>20633 | 21141<br>21785 | 22893<br>23508 | 24346<br>24837 | 25349<br>25703 | 26178<br>26397 | 27245<br>27008 | 27510<br>27664 | 27985<br>28158 | 28687<br>28760 | 29328<br>29289 | 30361<br>30167 | 30422<br>30385 | 30019<br>29733 | 29035<br>29148 | 29511<br>29541 | 29370<br>29569 | 27363<br>27708 | 24967<br>25190 | 22866<br>23160 |
| 4/20/2016              |   | 21783          | 21055          | 20293          | 20163          | 20520          | 21495          | 23336          | 24750          | 25555          | 26176          | 26668          | 27360          | 27855          | 28522          | 29052          | 29927          | 29892          | 29485          | 28788          | 29128          | 28953          | 27324          | 24948          | 22799          |
| 4/21/2016<br>4/22/2016 |   | 21604<br>21370 | 20742          | 20006<br>20002 | 19913<br>19996 | 20284<br>20347 | 21499<br>21577 | 23335<br>23260 | 24864<br>24747 | 25722<br>25497 | 26308<br>25933 | 26692<br>26010 | 27112<br>26223 | 27424<br>26231 | 27959<br>26275 | 28295<br>26223 | 29033<br>26620 | 28980<br>26540 | 28294<br>26018 | 27609<br>25777 | 28138<br>26507 | 28282<br>26883 | 26750<br>25604 | 24451<br>23723 | 22606<br>22052 |
| 4/23/2016              |   | 21076          | 20263          | 19546          | 19377          | 19412          | 19854          | 20485          | 21473          | 22324          | 22782          | 22895          | 22942          | 22991          | 22762          | 22854          | 23417          | 23596          | 23716          | 23485          | 24447          | 25212          | 24151          | 22750          | 21332          |
| 4/24/2016<br>4/25/2016 |   | 20666<br>20205 | 19758<br>19557 | 19055<br>19052 | 18799<br>19090 | 18709<br>19511 | 18862<br>20714 | 19021<br>22175 | 19914<br>23783 | 20842<br>25113 | 21309<br>25748 | 21536<br>25883 | 21476<br>25966 | 21886<br>26013 | 22049<br>26305 | 22136<br>26479 | 22472<br>26346 | 22758<br>26153 | 23089<br>25564 | 23377<br>25354 | 24440<br>26255 | 25172<br>26911 | 24060<br>25372 | 22532<br>23607 | 20918<br>21847 |
| 4/26/2016              |   | 20751          | 20234          | 19671          | 19737          | 20100          | 21382          | 23029          | 24343          | 25003          | 25487          | 25261          | 25344          | 25568          | 25699          | 25785          | 25997          | 26017          | 25333          | 25367          | 26145          | 26860          | 25436          | 23288          | 21725          |
| 4/27/2016<br>4/28/2016 |   | 20601<br>20653 | 19910<br>19997 | 19353<br>19485 | 19299<br>19503 | 19840<br>19929 | 21190<br>21157 | 23128<br>23101 | 24439<br>24517 | 25471<br>25270 | 25651<br>25755 | 25677<br>25615 | 25863<br>25803 | 25816<br>25807 | 25920<br>25974 | 25831<br>25977 | 26111<br>26331 | 25892<br>26102 | 24997<br>25737 | 24939<br>25144 | 26051<br>26052 | 26951<br>27063 | 25535<br>25644 | 23684<br>23840 | 22057<br>22060 |
| 4/29/2016              |   | 20898          | 20270          | 19670          | 19529          | 19829          | 21099          | 22943          | 24239          | 24763          | 25525          | 25667          | 25928          | 26021          | 26232          | 26307          | 26803          | 26706          | 26004          | 25049          | 25659          | 26282          | 25003          | 23589          | 21995          |
| 4/30/2016              |   | 21172          | 20374          | 19606          | 19353          | 19352          | 19870          | 20299          | 20915          | 22055          | 22586          | 22782          | 22819          | 22873          | 23007          | 23160          | 23464          | 23549          | 23498          | 23507          | 24314          | 25137          | 24028          | 22572          | 21547          |
| Row Labels             | ~ | 20564          | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | 13             | 14             | 15             | 16             | 17             | 18             | 19             | 20             | 21             | 22             | 23             | 24             |
| 5/1/2016<br>5/2/2016   |   | 20564          | 19810<br>19881 | 19097<br>19374 | 19083<br>19619 | 19088<br>20064 | 19402<br>21352 | 19252<br>22742 | 19512<br>23722 | 20215          | 21055<br>24886 | 21271<br>25511 | 21263<br>25833 | 21535<br>26157 | 21480<br>26298 | 21916<br>26635 | 22607<br>27127 | 23359<br>27796 | 24087<br>27882 | 24673<br>27772 | 25457<br>28120 | 26382<br>28730 | 24672<br>26931 | 22989<br>24594 | 21441<br>22664 |
| 5/3/2016               |   | 21553          | 20890          | 20280          | 20408          | 20876          | 22278          | 23676          | 24822          | 25156          | 25481          | 26055          | 26614          | 26957          | 26958          | 27245          | 27681          | 28283          | 28429          | 28473          | 28646          | 29301          | 27779          | 25217          | 23240          |
| 5/4/2016<br>5/5/2016   |   | 21762<br>21588 | 21112<br>20926 | 20455<br>20329 | 20630<br>20465 | 21041<br>20896 | 22271<br>22231 | 23586<br>23656 | 24602<br>24730 | 25161<br>25085 | 25650<br>25453 | 26181<br>25823 | 26407<br>25887 | 26553<br>25821 | 26364<br>25586 | 26496<br>25498 | 26758<br>25650 | 27266<br>26180 | 27520<br>26265 | 27635<br>26560 | 27967<br>27184 | 28822<br>28135 | 27116<br>26511 | 25010<br>24333 | 23190<br>22787 |
| 5/6/2016               |   | 21135<br>20987 | 20526<br>20281 | 19914<br>19629 | 20104<br>19657 | 20479<br>19706 | 21762<br>20114 | 23345<br>20314 | 24431<br>20753 | 25139<br>21352 | 25467<br>21948 | 25748<br>22141 | 25730<br>22233 | 25535<br>22071 | 25175<br>21659 | 25017<br>21624 | 25038<br>21901 | 25246<br>22327 | 25428<br>22864 | 25533<br>23344 | 26223<br>24218 | 27224<br>25512 | 25929<br>24357 | 23993<br>22977 | 22627<br>21632 |
| 5/7/2016<br>5/8/2016   |   | 20659          | 19969          | 19338          | 19312          | 19300          | 19551          | 19965          | 20753          | 20941          | 21245          | 21411          | 21622          | 21646          | 21387          | 21553          | 21703          | 22282          | 23044          | 23797          | 24218          | 26003          | 24976          | 23638          | 22082          |
| 5/9/2016               |   | 20774          | 20331          | 19857          | 19981          | 20325          | 21740          | 23196          | 24222          | 24873          | 25351          | 25819          | 25925          | 26089          | 25843          | 25943          | 26206          | 26701          | 26871          | 27097<br>27731 | 27650<br>28040 | 28657          | 27050          | 25179          | 23139          |
| 5/10/2016<br>5/11/2016 |   | 21523<br>21819 | 20652<br>21210 | 20038<br>20552 | 20180<br>20553 | 20633<br>20924 | 21874<br>22083 | 23291<br>23476 | 24373<br>24664 | 24987<br>25371 | 25428<br>26063 | 26059<br>26867 | 26349<br>27363 | 26564<br>27723 | 26530<br>27830 | 26785<br>28294 | 27167<br>28903 | 27694<br>29445 | 27744<br>29648 | 29642          | 29784          | 28960<br>30513 | 27176<br>29058 | 25168<br>26549 | 23235<br>24285 |
| 5/12/2016<br>5/13/2016 |   | 22524<br>22748 | 21830<br>22042 | 21137<br>21180 | 21214<br>21297 | 21572<br>21631 | 22628<br>22829 | 24014<br>23996 | 25075<br>24865 | 25840<br>25599 | 26699<br>26270 | 27611<br>26944 | 28286<br>27307 | 28831<br>27559 | 29179<br>27708 | 29818<br>28098 | 30619<br>28574 | 31254<br>29239 | 31353<br>29209 | 31236<br>29188 | 31031<br>29113 | 31457<br>29884 | 29648<br>28525 | 27132<br>26321 | 24847<br>24452 |
| 5/13/2016              |   | 22/48          | 21268          | 20530          | 20473          | 20465          | 20771          | 20837          | 21279          | 22675          | 23252          | 23811          | 23937          | 24126          | 23706          | 23840          | 24031          | 24629          | 25077          | 25492          | 25877          | 26915          | 25964          | 24396          | 22768          |
| 5/15/2016<br>5/16/2016 |   | 21373<br>21323 | 20558<br>20680 | 20052<br>20221 | 20153<br>20417 | 20116<br>20921 | 20351<br>22101 | 20373<br>23488 | 20646<br>24695 | 21303<br>25384 | 21785<br>25923 | 22213<br>26470 | 22438<br>26680 | 22569<br>26757 | 22411<br>26689 | 22736<br>26925 | 22876<br>27383 | 23661<br>27766 | 24111<br>27835 | 24661<br>28115 | 25288<br>28247 | 26287<br>29300 | 25238<br>27681 | 23859<br>25452 | 22460<br>23802 |
| 5/17/2016              |   | 22510          | 21921          | 21253          | 21391          | 21789          | 22714          | 24101          | 25236          | 25384          | 26630          | 27482          | 27915          | 28313          | 28494          | 28965          | 29717          | 30468          | 30845          | 30766          | 30777          | 31338          | 29443          | 26815          | 24651          |
| 5/18/2016<br>5/19/2016 |   | 22887<br>23083 | 22177<br>22278 | 21397<br>21532 | 21469<br>21584 | 21708<br>21942 | 22767<br>23109 | 23732<br>24270 | 24577<br>25257 | 25367<br>26117 | 26167<br>26659 | 27051<br>27347 | 27723<br>27691 | 28348<br>27972 | 28732<br>28008 | 29605<br>28333 | 30844<br>28855 | 31607<br>29394 | 31922<br>29620 | 31909<br>29555 | 31644<br>29517 | 32101<br>30240 | 30157<br>28683 | 27612<br>26371 | 25036<br>24241 |
| 5/20/2016              |   | 22246          | 21329          | 20722          | 20379          | 20615          | 21725          | 23642          | 25394          | 26456          | 27030          | 26966          | 27043          | 26817          | 26847          | 26742          | 26965          | 26749          | 26047          | 25783          | 26321          | 27316          | 25873          | 24282          | 23053          |
| 5/21/2016<br>5/22/2016 |   | 21635<br>20947 | 20676<br>20366 | 20057<br>19804 | 19898<br>19333 | 19521<br>19218 | 19845<br>19353 | 20488<br>19901 | 21353<br>20660 | 22458<br>21582 | 22959<br>21816 | 23383<br>21713 | 23389<br>21904 | 23185<br>21831 | 23023<br>21786 | 23000<br>21869 | 23009<br>22313 | 23048<br>22673 | 22809<br>22486 | 22829<br>23137 | 23660<br>24236 | 24779<br>25318 | 23915<br>24378 | 22710<br>23215 | 21437<br>21813 |
| 5/23/2016              |   | 20626          | 19881          | 19415          | 19184          | 19707          | 20968          | 22790          | 24514          | 25636          | 25995          | 26106          | 26264          | 26241          | 26348          | 26326          | 26772          | 26588          | 25887          | 26036          | 26751          | 27546          | 26295          | 24266          | 22680          |
| 5/24/2016<br>5/25/2016 |   | 21521<br>21660 | 20708<br>20782 | 20151<br>20242 | 19901<br>19885 | 20135<br>20210 | 21238<br>21328 | 23126<br>23111 | 24823<br>24864 | 25638<br>25743 | 26208<br>26069 | 26239<br>26083 | 26350<br>26105 | 26318<br>25988 | 26405<br>26057 | 26399<br>26123 | 26739<br>26573 | 26659<br>26669 | 25958<br>26228 | 25604<br>26076 | 26278<br>26605 | 27148<br>27463 | 25901<br>26306 | 23900<br>24277 | 22283<br>22509 |
| 5/26/2016              |   | 21794          | 21213          | 20686          | 20333          | 20685          | 21739          | 23197          | 24985          | 25867          | 26273          | 26370          | 26491          | 26567          | 26899          | 27079          | 27654          | 27800          | 27253          | 26900          | 27378          | 28061          | 26717          | 24665          | 22858          |
| 5/27/2016<br>5/28/2016 |   | 22369<br>22952 | 21537<br>21878 | 20511          | 20501<br>20479 | 20530          | 21521<br>20571 | 22862<br>21154 | 24542<br>22047 | 25278<br>23115 | 25858<br>24063 | 26118<br>24475 | 26445<br>24781 | 26550<br>25171 | 26948<br>25561 | 27276<br>26046 | 27966<br>27089 | 28186<br>27308 | 27635<br>26856 | 27188<br>26945 | 27435<br>27112 | 27842<br>27532 | 26804<br>26310 | 24945<br>24781 | 23300<br>23326 |
| 5/29/2016              |   | 22409          | 21298          | 20602          | 20018          | 19760          | 19836          | 20029          | 20750          | 21744          | 22548          | 22917          | 23479          | 23863          | 24364          | 24945          | 26079          | 26431          | 26243          | 26315          | 26576          | 27092          | 25701          | 24351          | 22902          |
| 5/30/2016<br>5/31/2016 |   | 22001<br>22536 | 20937          | 20142          | 19560<br>20486 | 19430<br>20802 | 19824<br>21701 | 19910<br>24409 | 20965<br>26103 | 21916<br>27259 | 22853<br>28201 | 28985          | 24248          | 24821<br>31176 | 25395<br>32155 | 26145<br>33194 | 27473<br>33890 | 28069<br>34259 | 28036          | 27916<br>32682 | 27905<br>32558 | 28335<br>32286 | 26665<br>30280 | 24829<br>27420 | 23162<br>25034 |
|                        |   |                |                |                |                |                |                |                |                |                |                |                |                | -              |                |                |                |                |                |                |                |                |                |                |                |
| Row Labels<br>6/1/2016 | ~ | 23617          | 22622          | 21775          | 21689          | 22000          | 23023          | 24505          | 25802          | 9<br>26738     | 10<br>27770    | 11<br>28768    | 12<br>29580    | 13<br>30955    | 14<br>31680    | 15<br>32650    | 16<br>33237    | 17<br>34160    | 18<br>34228    | 19<br>33782    | 20<br>33163    | 21<br>33529    | 22<br>31799    | 23<br>28234    | 24<br>25706    |
| 6/2/2016               |   | 23971          | 23136          | 22186          | 22069          | 22411          | 23245          | 24762          | 26060          | 27069          | 28212          | 29368          | 30412          | 31815          | 32835          | 34200          | 34803          | 35671          | 35593          | 35004          | 34256          | 34282          | 32278          | 29079          | 26547          |
| 6/3/2016<br>6/4/2016   |   | 24733<br>25404 | 23769<br>24358 | 22845<br>23041 | 22558<br>22601 | 22843<br>22521 | 23577<br>22432 | 25041<br>22683 | 26550<br>23390 | 27876<br>24633 | 29302<br>26056 | 30800<br>27515 | 32270<br>28848 | 34120<br>30603 | 35336<br>31550 | 36812<br>32702 | 37605<br>33474 | 38780<br>34537 | 38653<br>35081 | 37803<br>34730 | 36602<br>33421 | 36238<br>33337 | 33768<br>32071 | 30827<br>29608 | 27826<br>26729 |
| 6/5/2016               |   | 24454          | 23227          | 22051          | 21696          | 21518          | 21468          | 21249          | 21779          | 22910          | 23629          | 24881          | 26038          | 27552          | 28481          | 29792          | 30696          | 31917          | 32836          | 32845          | 32149          | 32273          | 30927          | 28303          | 26018          |
| 6/6/2016<br>6/7/2016   |   | 23468<br>23756 | 22505<br>22847 | 21655<br>22247 | 21635<br>22164 | 22057<br>22409 | 23050<br>23405 | 24501<br>24351 | 25196<br>25329 | 26310<br>26613 | 27509<br>27459 | 28597<br>28262 | 29406<br>29013 | 30152<br>29797 | 30811<br>30518 | 31891<br>31539 | 33067<br>32606 | 34150<br>33627 | 34424<br>33794 | 33934<br>33510 | 33292<br>32551 | 33245<br>32975 | 31280<br>31083 | 28910<br>28152 | 26366<br>25603 |
| 6/8/2016               |   | 23804          | 22801          | 21951          | 21861          | 22156          | 22979          | 24306          | 25357          | 26383          | 27431          | 28460          | 29407          | 30230          | 30933          | 31909          | 32774          | 33783          | 34191          | 33929          | 33055          | 33265          | 31491          | 28725          | 26134          |
| 6/9/2016<br>6/10/2016  |   | 23824<br>23456 | 22797<br>22397 | 21977<br>21582 | 21909<br>21478 | 21989<br>21803 | 22833<br>22644 | 24391<br>23941 | 25407<br>24985 | 26367<br>25766 | 27350<br>26630 | 28349<br>27460 | 29121<br>27978 | 29633<br>28247 | 30338<br>28626 | 31244<br>29253 | 32071<br>30071 | 33004<br>30875 | 33154<br>31144 | 32925<br>30892 | 32326<br>30229 | 32621<br>30608 | 31062<br>29707 | 28296<br>27423 | 26059<br>25517 |
| 6/11/2016              |   | 23515          | 22354          | 21478          | 21337          | 21298          | 21517          | 21615          | 22164          | 23087          | 23788          | 24480          | 24901          | 25172          | 25350          | 25872          | 26712          | 27652          | 28381          | 28808          | 28449          | 29247          | 28262          | 26366          | 24629          |
| 6/12/2016<br>6/13/2016 |   | 22816<br>22650 | 21724<br>21551 | 20890<br>21074 | 20687<br>20567 | 20582<br>20877 | 20604<br>22167 | 23905          | 26012          | 21434<br>27266 | 22125<br>27830 | 22887<br>28219 | 23280<br>28636 | 23630<br>28702 | 23944<br>29143 | 24502<br>29720 | 25477<br>30698 | 26455<br>31057 | 27174<br>30472 | 27944<br>29937 | 27871<br>29936 | 28721<br>30091 | 27740<br>28957 | 25802<br>26576 | 23884<br>24475 |
| 6/14/2016<br>6/15/2016 |   | 23007<br>22943 | 21963<br>21842 | 21229<br>21090 | 20901<br>20791 | 21209<br>21148 | 22228<br>22171 | 23781<br>23702 | 25346<br>25449 | 26403<br>26633 | 27080<br>27194 | 27448<br>27350 | 27807<br>27495 | 27880<br>27372 | 28250<br>27716 | 28810<br>28034 | 29574<br>28671 | 29914<br>28897 | 29524<br>28534 | 29467<br>28401 | 29399<br>28392 | 29755<br>29182 | 28787<br>28257 | 26457<br>25870 | 24420<br>24092 |
| 6/15/2016              |   | 22943          | 21868          | 21090          | 20/91          | 21148          | 221/1          | 23/02          | 25449<br>25477 | 26652          | 27194<br>27251 | 27350<br>27549 | 27495          | 27835          | 28122          | 28548          | 29235          | 28897          | 28534<br>28987 | 28401<br>28802 | 28392<br>28709 | 29182          | 28257          | 26207          | 24092          |
| 6/17/2016<br>6/18/2016 |   | 22865<br>23660 | 21970<br>22472 | 21217<br>21527 | 20771<br>21039 | 21166<br>21239 | 22011<br>20970 | 23440<br>21851 | 25099<br>22532 | 26514<br>23845 | 27338<br>24793 | 28008<br>25457 | 28274<br>26210 | 28485          | 29102          | 29664<br>28292 | 30418          | 30706          | 30194          | 29801          | 29378          | 30156          | 29093<br>29149 | 26858          | 24939<br>25135 |
| 6/19/2016              |   | 24618          | 23049          | 21527          | 21039          | 21239          | 21162          | 21851          | 21951          | 23845<br>23854 | 24646          | 26105          | 27945          | 26887<br>29590 | 27529<br>31227 | 28292<br>32809 | 29395<br>34688 | 30137<br>35798 | 30206<br>36041 | 30101<br>35837 | 29654<br>34883 | 29940<br>34299 | 32523          | 26995<br>29709 | 25135          |
| 6/20/2016              |   | 25911<br>27808 | 24382<br>26148 | 23432<br>24788 | 22735<br>23946 | 23091          | 24119<br>24757 | 26169<br>26645 | 28434<br>28761 | 30713<br>31007 | 32950<br>33034 | 34924<br>34874 | 37158<br>36683 | 38439<br>38556 | 39993<br>40324 | 41645<br>41354 | 42836<br>42010 | 43346<br>42170 | 42588<br>40946 | 41697<br>40034 | 40488<br>39027 | 39371<br>38040 | 37543<br>36043 | 33719<br>32486 | 30529<br>29467 |
| 6/21/2016<br>6/22/2016 |   | 27383          | 25807          | 24561          | 23816          | 23895          | 24689          | 26338          | 28761          | 30224          | 33034<br>31776 | 34874          | 34523          | 35880          | 37050          | 38416          | 39964          | 40265          | 39695          | 38374          | 37360          | 36440          | 34465          | 31078          | 28378          |
| 6/23/2016              |   | 25917          | 24560          | 23416<br>23215 | 22736<br>22595 | 22912          | 23875          | 25479          | 27322          | 29269<br>28709 | 30565          | 31551<br>31147 | 32803<br>32209 | 33578<br>33098 | 34930<br>34614 | 36027<br>35830 | 37602<br>37230 | 37551<br>37806 | 36800          | 35831<br>36056 | 34941<br>35084 | 34454<br>34353 | 32707<br>32743 | 29647          | 27266          |
| 6/24/2016<br>6/25/2016 |   | 25321<br>25950 | 24144<br>24460 | 23215          | 22595          | 22789<br>22256 | 23572<br>22266 | 25076<br>22762 | 26904<br>23734 | 25630          | 30049<br>27106 | 28479          | 30032          | 33098<br>31780 | 33119          | 35830<br>34594 | 35752          | 36745          | 37164<br>36518 | 36056          | 35084<br>35008 | 34353          | 32743          | 30091<br>29865 | 27782<br>27567 |
| 6/26/2016              |   | 26134          | 24617          | 23379<br>24181 | 22571<br>23556 | 22373          | 22209          | 21650<br>26191 | 22423<br>28226 | 24169<br>30586 | 25851          | 27568          | 29483<br>36546 | 31796<br>38750 | 33665<br>40798 | 35586          | 37216<br>42601 | 38334          | 38344          | 37908          | 36792          | 35721          | 34027          | 31078          | 28290<br>30536 |
| 6/27/2016<br>6/28/2016 |   | 26717<br>28030 | 25161<br>26402 | 25161          | 23556          | 23799<br>24632 | 25467          | 26191          | 28226          | 31419          | 32559<br>33530 | 34435<br>35605 | 37787          | 40099          | 40798          | 42446<br>43549 | 43601<br>44410 | 44194<br>44776 | 43146<br>43706 | 42143<br>42813 | 40818<br>41339 | 39817<br>40099 | 37249<br>38242 | 33590<br>34479 | 30536          |
| 6/29/2016              |   | 27724          | 26071          | 24787          | 24007          | 24083          | 24820          | 26583          | 28453          | 30725          | 32455          | 34065          | 35855          | 37751          | 39079          | 40627          | 41994          | 42405          | 41545          | 40339          | 39190          | 38149          | 35881          | 32338          | 29459          |
| 6/30/2016              |   | 26674          | 25118          | 23940          | 23184          | 23397          | 24260          | 26001          | 27859          | 29734          | 31381          | 32587          | 34309          | 36072          | 37296          | 38706          | 40430          | 41018          | 40288          | 39085          | 38055          | 37153          | 34938          | 31617          | 28612          |





These depictions of 2016 hourly data point towards a conclusion that a single peak hour per month likely isn't the most equitable solution. SVP suggests the CAISO form a methodology that takes into account all of the dark red time periods, keeping in mind that none of the top 12 demand hours of the year occur in non-summer months. Further, SVP submits that the current volumetric rate doesn't send a signal to demand response or energy storage customers as does a capacity rate.

SVP suggests that if a 12 CP method will be used, it be modified to apportion more of the revenue recovery to months with higher demands, and submits the following as approaches for investigation and consideration:

## Assumptions:

For simplicity, assume the HV TAC demand component of the TRR was \$1,200,000,000 and assume the following chart contains the previous year's monthly CAISO recorded peak demands.

|     | MW       |
|-----|----------|
| Jan | 30100.99 |
| Feb | 29731.63 |
| Mar | 29670.08 |
| Apr | 30421.88 |
| May | 34259.08 |
| Jun | 44776.02 |
| Jul | 45666.19 |
| Aug | 43541.5  |
| Sep | 40100.19 |
| Oct | 32594.97 |
| Nov | 31445.56 |
| Dec | 30330.08 |

The minimum monthly peak demand during this year was March with a peak demand of 29,670 MW, and the maximum monthly peak demand was 45,666 MW in July. Similar to how the total TRR was bifurcated into a volumetric rate and a demand component, the CAISO could bifurcate the demand component into monthly allocations using the following method:

First, multiply the highest peak month (45,666 MW) by 12 months, which results in 547,992 MW-months. Second, then divide that result into the total HV TRR demand component of \$1,200,000,000 - resulting in a base rate of \$2,189.8/MW-month.

This rate, multiplied by the actual recorded peak demands of each month, would recover \$779,659,875 (about 65%) of the HV TRR demand component - leaving \$420,340,125 (about 35%) yet to be recovered.

Subtracting the March figure (the minimum monthly peak demand for this particular year) from each of the twelve months' actual peak demand results in the following table.

|          | Amount   |
|----------|--|
|          | above min  |
| Peak     | month peak   |
| Demand   | demand   |
| 30100.99 | 430.91   |
| 29731.63 | 61.55  |
| 29670.08 | 0  |
| 30421.88 | 751.8  |
| 34259.08 | 4589   |
| 44776.02 | 15105.94   |
| 45666.19 | 15996.11   |
| 43541.5  | 13871.42   |
| 40100.19 | 10430.11   |
| 32594.97 | 2924.89  |
| 31445.56 | 1775.48  |
| 30330.08 | 660  |
|          | 66597.21   |
|          | Demand 30100.99 29731.63 29670.08 30421.88 34259.08 44776.02 45666.19 43541.5 40100.19 32594.97 31445.56 |

Allocating the \$420,340,125 remainder based on the monthly peak demand in excess of the year's minimum monthly demand would create the following table and monthly rates.

|     |          |           |                   |           |                    |    |                  | Por | tion of TRR not  |     |                |             |
|-----|----------|-----------|-------------------|-----------|--------------------|----|------------------|-----|------------------|-----|----------------|-------------|
|     |          |           |                   |           |                    |    |                  |     | overed through   |     |                |             |
|     |          |           |                   |           |                    |    |                  |     | base rate that   |     |                |             |
|     |          |           |                   |           |                    |    |                  |     | uld be allocated |     |                |             |
|     |          |           |                   |           |                    |    |                  | _   |                  |     |                |             |
|     |          | Amount    |                   |           |                    |    |                  | ,   | % of monthly     | L . |                |             |
|     |          |           | % of peak demand  |           |                    |    |                  |     | ak demand over   |     |                | Monthly     |
|     | Peak     |           | above minimum     | Min Month |                    |    | R recovered with |     |                  |     |                | demand      |
|     | Demand   |           | month peak demand |           |                    | _  | e base rate      | mo  | nth              | mo  | nth            | rate        |
| Jan | 30100.99 | 430.91    | 1%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 2,719,765.03     | \$  | 67,691,421.31  | \$ 2,248.81 |
| Feb | 29731.63 | 61.55     | 0%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 388,483.76       | \$  | 65,360,140.04  | \$ 2,198.34 |
| Mar | 29670.08 | 0         | 0%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | -                | \$  | 64,971,656.27  | \$ 2,189.80 |
| Apr | 30421.88 | 751.8     | 1%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 4,745,119.29     | \$  | 69,716,775.56  | \$ 2,291.67 |
| May | 34259.08 | 4589      | 7%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 28,964,288.93    | \$  | 93,935,945.20  | \$ 2,741.93 |
| Jun | 44776.02 | 15105.94  | 23%               | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 95,343,824.52    | \$  | 160,315,480.79 | \$ 3,580.39 |
| Jul | 45666.19 | 15996.11  | 24%               | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 100,962,290.65   | \$  | 165,933,946.92 | \$ 3,633.63 |
| Aug | 43541.5  | 13871.42  | 21%               | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 87,551,932.17    | \$  | 152,523,588.45 | \$ 3,502.95 |
| Sep | 40100.19 | 10430.11  | 16%               | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 65,831,492.61    | \$  | 130,803,148.89 | \$ 3,261.91 |
| Oct | 32594.97 | 2924.89   | 4%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 18,460,962.97    | \$  | 83,432,619.24  | \$ 2,559.68 |
| Nov | 31445.56 | 1775.48   | 3%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 11,206,257.51    | \$  | 76,177,913.78  | \$ 2,422.53 |
| Dec | 30330.08 | 660       | 1%                | 29670.08  | \$ 2,189.80        | \$ | 64,971,656.27    | \$  | 4,165,707.28     | \$  | 69,137,363.55  | \$ 2,279.50 |
|     |          | 66597.21  |                   |           | base component     | \$ | 779,659,875.28   |     |                  |     |                |             |
|     |          |           |                   |           | variable component | \$ | 420,340,124.72   |     |                  |     |                |             |
| Max | 45666.19 | 547994.28 | \$ 2,189.80       |           |                    |    |                  |     |                  |     |                |             |
| Min | 29670.08 |           |                   |           |                    |    |                  |     |                  |     |                |             |

This is one example of a method that could be used to allocate the demand component under the hybrid approach that still utilizes 12CP as a base method, but places more value on demand reduction during higher peaking months. This modified 12 CP method better reflects the costs associated with the higher peaking months than does the simple method of allocating  $1/12^{th}$  of the HV TRR demand component to each month of the year.

Another example of a method for adjusting the CAISO's 12 CP proposal to further recognize the heavier peak demand distribution in summer months could be to allocate more, potentially even up to 100%, of the total HV TRR demand component (\$1,200,000,000 in the prior first example) to

each separate month using the distribution in the fourth column of the above table ("% of peak demand above minimum month peak demand"). That is, rather than using the roughly 65% calculated in the first example above, the CAISO could administratively select a lower percentage of the HV TRR demand component to be recovered using a base monthly rate, which results in a higher percentage of the demand portion of the HV TRR to allocate based on the percentage of peak demand above minimum month peak demand. The result would be a lower (or potentially no) base monthly rate and a greater amount of the total HV TRR demand component (than the 35% in the first example) collected via the varying monthly supplemental portion of the total demand rate.

Such adjusted 12 CP methodologies appear to move closer to being consistent with the CPUC's utilization of Effective Load Carrying Capacity (ELCC) in determining Net Qualifying Capacity (NQC) of generating units for Resource Adequacy (RA) purposes. The CAISO – in both its April 4, 2018 Revised Straw Proposal and its April 11, 2018 stakeholder meeting presentation – notes the importance of being consistent with CPUC RA requirements.

# Treatment of Non-PTO entities to align with proposed hybrid billing determinant

- 7. Does your organization support the proposed modification to the WAC rate structure to align treatment of non-PTO entities with the proposed TAC hybrid billing determinant?
  - Yes. SVP supports the proposed modification to the WAC rate structure design for non-PTOs.
- 8. Please provide any additional feedback related to the proposal for modification to the treatment of the WAC rate structure for non-PTO entities.
  - SVP has no additional feedback on this issue at this time.

# **Additional comments**

- 9. Please offer any other feedback your organization would like to provide on the Review TAC Structure Revised Straw Proposal.
  - SVP supports the CAISO's rejection of moving the point of measurement from the end-use customer meter to the Transmission Energy Downflow (TED). Further, SVP supports the hybrid billing determinant proposal as well as its proposed modification to the WAC rate structure. That said, SVP believes that there could, and should, be modifications made to the proposed 12CP methodology to support cost allocations that ultimately align better with desired end-use customer behavior.