Decision \_\_\_\_\_

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

| Order Instituting Rulemaking Pursuant to Assembly Bill   | Rulemaking 10-12-007      |
|--|---------------------------|
| 2514 to Consider the Adoption of Procurement Targets for | (Filed December 16, 2010) |
| Viable and Cost-Effective Energy Storage Systems         |                           |

# INTERVENOR COMPENSATION CLAIM OF THE GREEN POWER INSTITUTE AND DECISION ON INTERVENOR COMPENSATION CLAIM OF THE GREEN POWER INSTITUTE

| Claimant: The Green Power Institute For contribution to D.12-08-016 and D.13-10-040  |                     | For contribution to D.12-08-016 and D.13-10-040     |
|--|---------------------|---|
| Claimed: \$ 73,6   | 71                  | Awarded: \$   |
| Assigned Commission  | ier: Carla Peterman | Assigned ALJs: Amy C. Yip-Kikugawa, Colette Kersten |
| I hereby certify that the information I have set forth in Parts I, II, and III of this Claim is true to my best knowledge, information and belief. I further certify that, in conformance with the Rules of Practice and Procedure, this Claim has been served this day upon all required persons (as set forth in the Certificate of Service attached as Attachment 1). |                     |   |
|  | Signature:          | Gregg love  |
| Date: 12/16/13   | Printed Name:       | Gregg Morris  |

# PART I: PROCEDURAL ISSUES (to be completed by Claimant except where indicated)

- A. Brief Description of Decision:
- **B.** Claimant must satisfy intervenor compensation requirements set forth in Public Utilities Code §§ 1801-1812:

|   | Claimant                      | CPUC Verified |
|---|-------------------------------|---------------|
| Timely filing of notice of intent to        | claim compensation (NOI) (§   | 1804(a)):     |
| 1. Date of Prehearing Conference:           | April 21, 2011                |               |
| 2. Other Specified Date for NOI:            |                               |               |
| 3. Date NOI Filed:                          | May 13, 2011                  |               |
| 4. Was the NOI timely filed?                |                               |               |
| Showing of customer or cus                  | tomer-related status (§ 1802( | b)):          |
| 5. Based on ALJ ruling issued in proceeding | R.10-12-007                   |               |

| number:  |                             |
|--|-----------------------------|
| 6. Date of ALJ ruling:                                     | July 5, 2011                |
| 7. Based on another CPUC determination (specify):          |                             |
| 8. Has the Claimant demonstrated customer or custom        | er-related status?          |
| Showing of "significant finan                              | cial hardship" (§ 1802(g)): |
| 9. Based on ALJ ruling issued in proceeding numbeR         | R.10-12-007                 |
| 10. Date of ALJ ruling:                                    | July 5, 2011                |
| 11. Based on another CPUC determination (specify):         |                             |
| 12. 12. Has the Claimant demonstrated significant financia | l hardship?                 |
| Timely request for com                                     | pensation (§ 1804(c)):      |
| 13. Identify Final Decision:                               | D.13-10-040                 |
| 14. Date of Issuance of Final Order or Decision:           | October 21, 2013            |
| 15. File date of compensation request:                     | December 16, 2013           |
| 16. Was the request for compensation timely?               |                             |

# C. Additional Comments on Part I (use line reference # as appropriate):

| # | Claimant | CPUC | Comment |
|---|----------|------|---------|
|   |          |      |         |
|   |          |      |         |

# **PART II: SUBSTANTIAL CONTRIBUTION** (to be completed by Claimant except where indicated)

A. In the fields below, describe in a concise manner Claimant's contribution to the final decision (see § 1802(i), § 1803(a) & D.98-04-059). (For each contribution, support with specific reference to the record.)

| Contribution   | Specific References to Claimant's<br>Presentations and to Decision  | Showing Accepted<br>by CPUC |
|--|---|-----------------------------|
| <b>D.12-08-016, Framework for</b><br><b>Analyzing Energy Storage</b>                 | (Please note that Attachment 2 includes<br>a list of GPI Pleadings relevant to this<br>Claim.)                    |                             |
| 1. Identify Applications,<br>Define Use Cases  | GPI's Comments on Barriers to Storage, 8/29/11, pgs. 1-4.   |                             |
| The GPI emphasized from our<br>earliest filing in this<br>proceeding that storage is | On pg. 1 of the GPI's <i>Comments</i> , we argued: "Indeed, storage is a family of technologies with a variety of |                             |

| fundamentally different than<br>generation, and that the<br>framework for analyzing and<br>supporting the deployment of<br>storage should also be<br>different.<br>Due to the fact that storage<br>represents a broad range of<br>technologies with a wide<br>variety of capabilities, and the<br>early stage of<br>commercialization that is<br>characteristic of most storage<br>technologies, the GPI<br>supported the proposal for an<br>application-based framework<br>to be used for the second phase<br>of the proceeding. | characteristics that can provide a range<br>of different kinds of services for the<br>state's integrated electricity grid.<br>Dealing with the diversity of systems<br>that come under the rubric of storage,<br>while recognizing that the field is still in<br>rapid development, suggests to us that<br>the best approach, from a regulatory<br>perspective, is to make sure that there is<br>sufficient flexibility in the framework to<br>accommodate and promote new<br>technologies and applications."<br>On pg. 26, the Decision states: "The<br>multi-functional capabilities of energy<br>storage mean that this resource cannot<br>be evaluated and considered on a "one<br>size fits all" basis. As such, we believe<br>that there is a need to divide energy<br>storage applications into separate,<br>discrete functions." |  |
|---|--|--|
|   | The Decision acknowledges, on page 8,<br>the GPI's contribution to developing a<br>broad framework for the analysis of<br>energy storage systems in this<br>proceeding based on an application-<br>driven approach. The Decision adopts a<br>framework based on the application-<br>driven approach, and presents 20<br>applications, or use cases, for<br>consideration in the second phase of the<br>proceeding.   |  |
|   | GPI's <i>Comments on the PD</i> , 7/23/12, pgs. 1-2.   |  |
|   | The staff proposal that is adopted in the<br>Decision presents 20 use cases for<br>storage, several of which are based on<br>using storage for purposes of<br>renewables integration. Our <i>Comments</i><br>helped the Commission to distinguish<br>the types of approaches to integration<br>that storage can provide, and argued for<br>putting use cases providing integration<br>services in the highest priority category.   |  |

| 2. Identify Barriers to<br>Storage   | GPI's <i>Comments on Barriers to Storage</i> , 8/29/11, pgs. 2-4.   |  |
|--|---|--|
| One of the first efforts<br>undertaken in this proceeding  | The GPI identified and discussed the following barriers in these <i>Comments</i> :  |  |
| was the identification of barriers to the deployment of  | • Need for storage-specific tariffs   |  |
| storage systems in California.<br>In this context, the GPI<br>identified the lack of storage-  | <ul> <li>The application-specific approach<br/>has merit</li> <li>Setting targets for storage</li> </ul>  |  |
| specific tariffs as a major  | <ul> <li>Storage, renewables, and RECs</li> </ul>   |  |
| barrier to the early deployment<br>of storage. The GPI also<br>identified the lack of a  | <ul> <li>Using the storage in plug-in vehicles<br/>for grid operations</li> </ul>   |  |
| cohesive regulatory framework<br>designed specifically for the<br>diverse storage sector, and the  | • Ownership and the operation of storage  |  |
| lack of commercial operating experience as major barriers to   | GPI's <i>Comments on the PD</i> , 7/23/12, pgs. 1-2.  |  |
| the deployment of storage.   | Our <i>Comments</i> discuss and highlight the use cases that are relevant to the integration of renewables, and the barriers they face.   |  |
|  | The Decision discusses nine barriers to<br>the deployment of storage in California,<br>including several that the GPI brought to<br>the Commission's attention. In<br>particular, we contributed to the<br>discussion and understanding of the<br>following barriers: lack of a cohesive<br>regulatory framework, lack of cost<br>transparency and price signals, and lack<br>of commercial operating experience. |  |
| D.13-10-040, Energy Storage<br>Procurement Framework   |   |  |
| 3. Use Cases, Targets for Storage  | GPI's Comments on the Phase 2 Interim<br>Staff Report, 2/4/13, pgs. 7-8.  |  |
| AB 2514 directs the<br>Commission to consider setting<br>targets for storage systems.<br>This was one of the most<br>contentious issues settled in | We concluded our discussion of targets<br>on page 8 with: "It might make sense to<br>set reasonable, near-term program goals<br>for a defined set of promising<br>applications for storage systems,   |  |

| this Decision. The GPI argued<br>that if targets for storage<br>systems were adopted, they<br>should be broad and<br>encompassing in terms of the<br>kinds of storage systems that<br>qualify for the targets, and any<br>targets that are set should be<br>based on installed MW, not<br>contracted-for MW, as was the<br>case in the original proposal<br>for instituting targets. We also<br>pointed out that in the original<br>proposal the overall<br>procurement targets were being<br>conflated with the allocations<br>reserved for the proposed<br>biennial solicitations, resulting<br>in confusion. | probably based on the Use Cases. This<br>would send a clear signal to the<br>marketplace that significant growth in<br>energy-storage systems in California is<br>on the horizon."<br>GPI's <i>Reply Comments on the Phase 2</i><br><i>Interim Staff Report</i> , 2/21/13, pgs. 2-3.<br>On page 3, we refuted the argument of<br>many parties opposed to setting targets<br>for storage on the basis that storage<br>should compete on its own in the<br>competitive marketplace: "Simply<br>allowing storage to compete in the<br>electricity marketplace for the provision<br>of goods and services is not appropriate<br>at this point in time for this promising<br>set of technologies that are still in the<br>early stages of commercialization. |  |
|---|---|--|
| The final Decision makes clear<br>that storage systems that are<br>procured outside of the<br>solicitations ordered in this<br>Decision can be eligible for<br>satisfying storage targets, that<br>targets can only be met by<br>operating capacity, not<br>contracted-for capacity, that<br>capacity procured in a given<br>solicitation needs several years<br>to move from winning bid to<br>commissioned facility, and the<br>Decision distinguishes between<br>the overall targets that are set<br>for storage, and the allocations<br>that are reserved for the<br>biennial solicitations.                | GPI's Comments on the AC's Ruling<br>Proposing Storage Procurement<br>Targets, 7/3/13, pgs. 4-5.<br>We argue in favor of the proposed<br>storage targets on pg. 5: "We support<br>the setting of overall procurement<br>targets for storage installations that can<br>be fulfilled by a wide variety of storage<br>configurations that contribute to the<br>state's interconnected electrical system,<br>including installations that are integrated<br>with renewable generators, installations<br>that are integrated into operations of<br>various portions of the grid, and<br>installations that are on the customer<br>side of the meter or otherwise operated<br>on behalf of the interests of electricity<br>consumers."                        |  |
|   | We also argue that the proposal<br>conflates overall targets with allocations<br>for individual solicitations, and that<br>fulfilling targets should require<br>operating capacity, not contracts for<br>projects-in-development: "The GPI also<br>notes that the proposal uses the term<br>procurement targets, as they are applied  |  |

| to the proposed solicitations, to refer to<br>the amounts of storage capacity that<br>should be awarded contracts in the<br>various solicitations described in the<br>proposal. The RPS program and other<br>preferred-resources programs overseen<br>by this Commission have long<br>established the precedent that<br>procurement targets refer to delivered<br>energy or services, not contracted-for<br>energy or services. We strongly urge<br>the Commission to set storage-<br>procurement targets that can only be<br>fulfilled with operating storage capacity,<br>not with contracted-for capacity, some<br>of which will never materialize."<br>[Comments, pg. 5.]  |  |
|--|--|
| GPI's Reply Comments on the AC's<br>Ruling Proposing Storage Procurement<br>Targets, 7/19/13, pgs. 1-2.  |  |
| In our Reply, we reiterated our support<br>for broad-based procurement targets,<br>and for targets that could only be<br>fulfilled with operating capacity, not<br>contracted-for capacity.  |  |
| GPI's Comments on the Proposed<br>Decision of Commissioner Peterman,<br>9/23/13, pgs. 1-3, 5-6. We recognized<br>progress made since the original<br>proposal in clarifying the difference<br>between allocations to solicitations and<br>overall targets, but asked for a couple of<br>further clarifications. For example, we<br>pointed out: "Moreover, there is an<br>inevitable time lag between when a<br>contract is signed, and when a project is<br>operational. Thus, for example,<br>contracts that result from solicitations<br>conducted in 2020 will surely not<br>contribute any online operating capacity<br>in-service by 2020. The PD and the<br>Framework are silent on the issue of<br>time lag between contract award and<br>operational installation." [Comments,<br>pg. 2.] |  |

|  | We also expressed our concern that the<br>PD offered insufficient direction to the<br>utilities regarding the design of the their<br>solicitations: "We encourage the<br>Commission to insert language into the<br>final Decision that encourages the<br>utilities to design a series of solicitations<br>to meet the procurement goals in each<br>entry in the Storage Framework Table.<br>For example, the solicitation for a<br>utility-owned and operated installation<br>would be quite different than the<br>solicitation for a third-party-owned and<br>operated installation. In many cases it<br>might be more effective for a utility to<br>use a series of limited solicitations to<br>meet each target in the Framework's<br>Table, rather than a single, broader<br>solicitation." [Comments, pg. 6.]<br>The final Decision establishes a flexible<br>series of targets and solicitations for |  |
|--|--|--|
|  | storage systems. The Decision makes it<br>clear that targets must be met with<br>operating installations, and accounts for<br>the lag time between contracting and<br>operations: "However, by no later than<br>the end of 2024, the IOUs must have the<br>full 1,325 MW installed Thus, we<br>are balancing flexibility in roughly the<br>next decade with an absolute installation<br>requirement no later than the end of<br>2024." [D.13-10-040, pg. 26.]  |  |
| 4. Define Eligibility Rules for<br>Storage Targets   | GPI's Comments on the Phase 2 Interim<br>Staff Report, 2/4/13, pgs. 4-5.   |  |
| The June 10, 2013, proposal<br>for instituting targets for<br>storage systems described a<br>proposed solicitation system<br>for storage, but also made a<br>number of existing storage<br>projects that are in various<br>stages of development eligible<br>for satisfying the targets. The | In these Comments the GPI criticized<br>the EV charging use case, which<br>required commercial chargers to have<br>fixed storage installations in order to be<br>eligible for the targets, and described<br>how, under the appropriate<br>circumstances the batteries in the<br>vehicles being charged can be used to<br>provide storage-operating services to the   |  |

| GPI encouraged the                                | grid without the need for any fixed   |  |
|---|---|--|
| Commission to be inclusive,                       | storage installation.   |  |
| and urged the Commission to                       | GPI's Comments on the Proposed  |  |
| set explicit rules for                            | Decision of Commissioner Peterman,  |  |
| determining the eligibility of                    | 9/23/13, pgs. 4-5.  |  |
| storage systems procured                          | <i>Ji25</i> /15, pgs. +-5.  |  |
| outside of the sanctioned                         | In these Comments we support the PD   |  |
| storage solicitations.                            | for including a process for qualifying  |  |
| The GPI introduced the                            | non-listed projects that do not arise from  |  |
| concept into the proceeding                       | a storage solicitation, and encourage the   |  |
| that in addition to stationary                    | Commission to include a definition of   |  |
| storage installations, under                      | eligibility in the final Decision. For  |  |
| appropriate circumstances the                     | example, on pg. 4 we argue: "In the   |  |
| batteries in plugin electric                      | opinion of the GPI, the Commission  |  |
| vehicles should be eligible for                   | would be wise to incorporate into the   |  |
| the targets. We also supported                    | Framework a clear and explicit  |  |
| excluding large pumped hydro                      | definition or statement about what kinds  |  |
| from meeting the targets, for                     | of storage systems are eligible to fulfill  |  |
| reasons that are roughly                          | the Framework's procurement targets."   |  |
| analogous to the reasons for                      | We also support the PD's determination  |  |
| excluding large hydro from                        | to exclude pumped hydro projects larger   |  |
| participating in the RPS                          | than 50 MW from eligibility for the   |  |
| program.  | storage targets set in this proceeding,   |  |
| The final Decision takes our                      | and encourage the Commission to   |  |
|   | include the batteries in plugin vehicles  |  |
| advice and sets explicit<br>eligibility rules for | as eligible under specified conditions:   |  |
| participation in the targets.                     | "The PD and the Storage Framework are   |  |
| Vehicle batteries are                             | silent on the subject of the energy-  |  |
| determined to be eligible under                   | storage capacity that is growing in the   |  |
| appropriate conditions, and                       | nascent plug-in vehicle fleet. Much of  |  |
| large pumped hydro is not                         | this storage capacity will be operated  |  |
| eligible.   | (charged and discharged) beyond the   |  |
| engiote.  | control and/or use of the electricity grid,   |  |
|   | and in our opinion this capacity should   |  |
|   | not be eligible for the Storage   |  |
|   | Framework targets. On the other hand,   |  |
|   | some amount of the storage capacity   |  |
|   | that is embodied in the vehicle fleet   |  |
|   | could be put under the control of grid  |  |
|   | operators for purposes of providing   |  |
|   | grid-operating services, for example by   |  |
|   | employing smart meters and commercial   |  |
|   | charging operations, and in our opinion   |  |
|   | the storage capacity in this category   |  |
|   | ought to be considered for eligibility for<br>the Errmeuverle's targets " [Comments |  |
|   | the Framework's targets." [Comments,  |  |

| pgs. 4-5.]  |  |
|---|--|
| The Decision provides, on pg. 32,<br>precise eligibility rules for determining<br>what kinds of storage are eligible for<br>meeting the storage targets set in the<br>Decision:   |  |
| "Based on the definitions accepted<br>under the use cases and Section 2835(a),<br>we find that all of the storage projects<br>identified in the Proposed Plan should<br>be counted towards the IOUs'<br>procurement targets provided that they<br>meet the following requirements:  |  |
| 1. The project demonstrates its ability to<br>meet one or more of the following<br>purposes: grid optimization, integration<br>of renewable energy, or reduction of<br>greenhouse gas emissions.  |  |
| 2. The project is under contract or was installed after January 1, 2010.  |  |
| 3. The project is operational by no later than the end of 2024.   |  |
| Other IOU storage projects that were not<br>identified in the Proposed Plan, such as<br>PG&E's Vaca-Dixon Battery Project<br>and Yerba Buena Battery Project,<br>should also count towards the IOU's<br>procurement targets once they have<br>reached commercial operation and meet<br>the three requirements above."   |  |
| The Decision also determines that large<br>pumped hydro projects are ineligible for<br>the targets, and batteries in EVs could<br>be eligible: "Similarly, energy storage<br>capacity that could be obtained from<br>plug-in vehicles and programs/systems<br>that utilize electric vehicles for grid<br>services (Vehicle to Grid) could count<br>towards procurement targets." [D.13-<br>10-040, pg. 32.] |  |
|   |  |

# 5. Add Storage to the Loading Order?

The Januar Ruling Req asks wheth designated and added order. The based on te could be m could be ac order. How that adding loading ord via a joint agencies th original det unilaterally further poin through the lengthy, an to the load assist nearfacilitate it The final E us that desi preferred r

it to the loa require a m and is not 1 of impleme

# 6. Limits o Ownership

The GPI ar beginning that storage generation. limiting uti generation needed in t Moreover,

| oruci.   | [ bidij] heport, 2/4/15, pgs. 5 0.  |  |
|--|---|--|
| ry 18, 2013, ALJ's<br>equesting Comments<br>her storage should be<br>d a preferred resource<br>to the state's loading<br>e GPI argued that<br>eechnical merit a case<br>nade that storage<br>dded to the loading<br>owever, we warned<br>g storage to the<br>decision of the<br>hat are parties to the<br>etermination, not<br>y by the PUC. We<br>inted out that going<br>he process would be<br>nd so adding storage<br>ding order would not<br>r-term efforts to<br>ts deployment.<br>Decision agrees with<br>signating storage as a<br>resource and adding<br>hading order would<br>multiagency action,<br>needed for purposes<br>henting AB 2514. | In these Comments the GPI argued that<br>it would be appropriate to make storage<br>a preferred resource and add it to the<br>loading order, but only if done with due<br>process: "We believe that the only way<br>to fully, or officially, insert storage into<br>the loading order would be to do so<br>using the same joint-agency process as<br>has been used in the past to establish<br>and update the state's <i>Energy Action</i><br><i>Plan.</i> " We also pointed out that this<br>would be a lengthy process, and thus not<br>relevant to anything undertaken in this<br>proceeding.<br>GPI's <i>Reply Comments on the Phase 2</i><br><i>Interim Staff Report</i> , 2/21/13, pg. 2.<br>In these Reply Comments we reiterate<br>our warning that amending the state<br>loading order would be a lengthy<br>process, and would not help in the near-<br>term commercialization of storage<br>systems. Nevertheless, we supported<br>the pursuit of an exploratory process to<br>determine whether it is worth pursuing<br>the process.<br>The Decision, on pgs. 10-11,<br>acknowledges that storage is worthy of<br>designation as a preferred resource, but<br>declines to revise the loading order<br>unilaterally. |  |
| on Utility<br>ip of Storage  | GPI's Comments on Barriers to Storage, 8/29/11, pg. 4.  |  |
| rgued, from the<br>of the proceeding,<br>ge is different than<br>h, and that rules<br>tility ownership of<br>h are not necessarily<br>the case of storage.<br>, insofar as storage is  | In our earliest pleading in this<br>proceeding, we introduced, on page 4,<br>the concept that certain kinds of storage<br>systems might benefit from utility<br>ownership: "In the olden days of<br>vertically-integrated utilities, grid<br>operators had their hands, so to speak,<br>on the throttles of their own power   |  |

| sited and used for providing<br>grid-operating services, there is<br>reason to believe that the<br>optimal mode of operating<br>these systems may be most<br>easily obtained when they are<br>owned and/or operated by the<br>operators of the grid.<br>The June 10, 2013, AC's<br>Ruling proposed strict limits on<br>utility ownership, limiting it to<br>50 percent in all categories.<br>The final Decision takes our<br>advice and softens the 50<br>percent limit by broadening it<br>across categories. This should<br>have the effect of allowing<br>utility-ownership of storage for<br>most applications for which<br>this makes sense. | plants, and could respond to grid<br>imbalances directly with their own<br>equipment. Today, grid operators<br>respond to schedule deviations and<br>imbalances with contracts for support<br>services with service providers. We<br>would like to put forth the idea that grid<br>operators, including the CAISO and the<br>major distribution utilities, consider<br>investing in, owning and operating<br>strategic storage systems that are<br>designed to provide rapid-response<br>services to the grid."<br>GPI's <i>Comments on the Phase 2 Interim</i><br><i>Staff Report</i> , 2/4/13, pgs. 2-3.<br>In these Comments we argue that<br>ownership models can influence how<br>storage systems are operated, and that<br>transmission-connected storage systems<br>owned and operated by the grid operator<br>could be optimized compared to<br>operations of these systems by third<br>parties operating subject to rigid<br>contract provisions: "If grid operators<br>had direct operational control over<br>storage systems that are operating<br>in conventional, generator-oriented<br>markets." |  |
|---|--|--|
|   | GPI's Reply Comments on the Phase 2<br>Interim Staff Report, 2/21/13, pg. 3.   |  |
|   | We reiterate our argument about<br>allowing utility ownership of storage<br>installations designed to provide grid<br>operating services.  |  |
|   | GPI's Comments on the AC's Ruling<br>Proposing Storage Procurement<br>Targets, 7/3/13, pgs. 3-4.   |  |
|   | In these Comments we oppose the 50<br>percent limit on utility ownership of<br>storage designed to provide grid<br>operational services that is included in  |  |

| the staff proposal: "In the opinion of the<br>GPI, the same considerations apply to<br>storage systems that are not associated<br>with renewable generators. Many stand-<br>alone storage installations will be<br>designed primarily to supply operating<br>services to grid operators. Due to the<br>newness of these types of installations,<br>it is highly likely that grids equipped<br>with storage systems will take some<br>time in determining how to optimally<br>use these storage systems over a range<br>of operating conditions on the grid. We<br>are concerned that storage facilities that<br>are operated subject to limited and rigid<br>contracts may not be able deliver the<br>full range of services that the<br>installations are capable of supplying.<br>For this reason, the GPI believes that for<br>many storage use cases there is a real<br>advantage to linking the ownership and |  |
|--|--|
| operations of the storage systems to the<br>grid they serve." [Comments, pgs. 3-4.]<br>GPI's <i>Reply Comments on the AC's</i><br><i>Ruling Proposing Storage Procurement</i>  |  |
| <i>Targets</i> , 7/19/13, pgs. 3-4.<br>We reiterate, in this Reply, our support<br>for allowing utility ownership of storage<br>installations, to the extent that utilities<br>want to do so. We conclude our<br>argument on pg. 4 with: "We are not in<br>any way arguing against providing for<br>the development of non-utility (private)<br>ownership and operation of storage<br>systems of all varieties. We are simply<br>arguing against imposing limitations on<br>utility ownership."  |  |
| The Decision, on pgs. 48-52, retains an<br>overall limitation of 50 percent on utility<br>ownership of storage, but only applies<br>the limitation to each IOU's entire<br>portfolio of storage systems: "In light of<br>the above, we find that the utility<br>ownership of storage projects should not<br>exceed 50 percent of all storage across  |  |

|  | all three grid domains at this time. In<br>other words, utilities may own no more<br>than half of all of the storage projects<br>they propose to count toward the MW<br>target, regardless of whether it is<br>interconnected at the transmission or<br>distribution level, or on the customer<br>side of the meter." [D.13-10-040, pgs.<br>51-52.] As late in the process as the PD<br>the 50-percent limitation was applied<br>individually to each of the grid domains.   |  |
|--|--|--|
| <ul> <li>7. Use of RAM-Type<br/>Solicitations for Storage</li> <li>The June 10,2013, proposal for<br/>instituting targets for storage<br/>systems described a proposed<br/>solicitation mechanism for<br/>storage modeled on the RAM<br/>auction system used for mid-<br/>sized renewables in the RPS<br/>program. The GPI argued that<br/>a RAM-type solicitation is not<br/>suitable for technologies in the<br/>early stages of<br/>commercialization, and would<br/>not work well in a situation in<br/>which different potential<br/>bidders would be offering<br/>differing packages of products<br/>and services.</li> <li>The final Decision rejects the<br/>RAM mechanism for storage,<br/>and provides for different kinds<br/>of solicitations for different<br/>kinds of storage systems.</li> </ul> | GPI's Comments on the AC's Ruling<br>Proposing Storage Procurement<br>Targets, 7/3/13, pgs. 6-8.<br>We argued, in these Comments, that a<br>RAM-type procurement mechanism was<br>structurally unsuited to the job of<br>promoting the development of this<br>emerging market: "RAM-type<br>solicitations are designed to procure, at<br>lowest cost to the ratepayer, well-<br>defined products from installations that<br>are commercially mature. This does not<br>describe the current state of the storage<br>market, which is not commercially<br>mature, and which is composed of a<br>range of technologies and<br>configurations, each with a unique set of<br>products that it can potentially provide<br>to the grid. We are concerned that a<br>RAM-type solicitation would be far too<br>limiting to stimulate the full range of<br>systems and products that the storage<br>industry is capable of providing."<br>[Comments, pg. 6.]<br>GPI's <i>Reply Comments on the AC's<br/>Ruling Proposing Storage Procurement<br/>Targets</i> , 7/19/13, pg. 2.<br>We conclude, on pg. 2, our argument<br>opposing the use of the RAM: "We<br>continue to believe that the RAM is not<br>a good fit for storage, which is both in<br>the early stages of commercial |  |

| development, and composed of too<br>broad a range of products and services<br>to be adequately targeted in a RAM<br>solicitation. We continue to recommend<br>that the Commission consider other<br>procurement mechanisms that may be<br>more suitable for this still emerging<br>market, such as demonstration projects<br>and targeted RFOs."  |  |
|---|--|
| The Decision rejects the RAM using our<br>structural argument: "We agree with<br>parties that the RAM is not the<br>appropriate mechanism for the<br>procurement of energy storage. Energy<br>storage has multiple attributes and<br>functions that cross the spectrum of<br>wholesale and retail markets and<br>transmission & distribution grid<br>services. As such, a RAM-type<br>solicitation, which seeks to obtain the<br>lowest cost for ratepayers, may not be<br>able to properly evaluate projects due to<br>the variety of functions and markets<br>served." [D.13-10-040, pgs. 54-55.] |  |
|   |  |

### B. Duplication of Effort (§§ 1801.3(f) & 1802.5):

|    |   | Claimant | CPUC Verified |
|----|---|----------|---------------|
| a. | Was the Office of Ratepayer Advocates (ORA) a party to the proceeding? <sup>1</sup>   | Yes      |               |
| b. | Were there other parties to the proceeding with positions similar to yours?   | Yes      |               |
| c. | If so, provide name of other parties: CA Energy Storage All<br>CALWEIA, CEERT, Clean Coalition, DRA, IEP, LSA, SEIA,<br>and the three large IOUs. |          |               |
| d. | Describe how you coordinated with ORA and other parties duplication or how your participation supplemented, comp                                  |          |               |

<sup>&</sup>lt;sup>1</sup> The Division of Ratepayer Advocates was renamed the Office of Ratepayer Advocates effective September 26, 2013, pursuant to Senate Bill No. 96 (Budget Act of 2013: public resources), which was approved by the Governor on September 26, 2013.

| contributed to that of another party<br>who had positions similar to our own. |                    |                   | it we |  |
|---|--------------------|-------------------|-------|--|
| also had positions contrary to all of th                                      |                    |                   |       |  |
|   |                    |                   | ven   |  |
| while we agreed on other issues. This   |                    |                   |       |  |
| Commission's initial foray into a new   | area, and traditio | onal alliances ar | nong  |  |
| parties were often not applicable. We   | were in contact y  | with all of the   |       |  |
| environmental parties participating in  | the proceeding, s  | hared ideas, and  | 1     |  |
| supported each other when our views   |                    |                   |       |  |
| efforts in this proceeding with other p                                       |                    |                   |       |  |
| effort, and thereby added significantly                                       |                    |                   |       |  |
| deliberations. Some amount of duplic  |                    |                   |       |  |
|   |                    |                   |       |  |
| on all sides of contentious issues, but                                       |                    |                   |       |  |
| the extent possible, and tried to minin                                       | ize it where it wa | as unavoidable.   |       |  |

# C. Additional Comments on Part II (use line reference # or letter as appropriate):

| # Claimant | CPUC | Comment |
|------------|------|---------|
|            |      |         |

# PART III: REASONABLENESS OF REQUESTED COMPENSATION (to be completed by Claimant except where indicated)

### A. General Claim of Reasonableness (§§ 1801 & 1806):

| a. Concise explanation as to how the cost of Claimant's participation<br>bears a reasonable relationship with benefits realized through<br>participation (include references to record, where appropriate)  | CPUC Verified |
|---|---------------|
| The GPI is providing, in Attachment 2, a listing of all of the pleadings we provided in this Proceeding, R.10-12-007 that are relevant to matters covered by this Claim, and a detailed breakdown of GPI staff time spent for work performed that was directly related to our substantial contributions to Decisions D.12-08-016, and D.13-10-040.  |               |
| The hours claimed herein in support of Decisions D.12-08-016, and D.13-10-040 are reasonable given the scope of the Proceeding, and the strong participation by the GPI. Dr. Morris acted in this Proceeding as both witness and participating party. We were also assisted by our capable Associate, Vennessia Whiddon. GPI staff maintained detailed contemporaneous time records indicating the number of hours devoted to this case. In preparing Attachment 2, Dr. Morris reviewed all of the recorded hours devoted to this proceeding, and included only those that were reasonable and contributory to the underlying tasks. As a result, the GPI submits that all of the hours included in the attachment are reasonable, and should be compensated in full. |               |
| Dr. Morris is a renewable energy analyst and consultant with more than twenty-<br>five years of diversified experience and accomplishments in the energy and<br>environmental fields. He is a nationally recognized expert on biomass and   |               |

renewable energy, climate change and greenhouse-gas emissions analysis, integrated resources planning, and analysis of the environmental impacts of electric power generation. Dr. Morris holds a BA in Natural Science from the University of Pennsylvania, an MSc in Biochemistry from the University of Toronto, and a PhD in Energy and Resources from the University of California, Berkeley.

Dr. Morris has been actively involved in electric utility restructuring in California throughout the past two decades. He served as editor and facilitator for the Renewables Working Group to the California Public Utilities Commission in 1996 during the original restructuring effort, consultant to the CEC Renewables Program Committee, consultant to the Governor's Office of Planning and Research on renewable energy policy during the energy crisis years, and has provided expert testimony in a variety of regulatory and legislative proceedings, as well as in civil litigation.

Ms. Whiddon is a highly capable professional in the early stages of her career. Ms. Whiddon has a Masters from Towson University, and is working in the renewable energy field. Ms. Whiddon worked for 5 years for Washington Counsel / Ernst and Young, a Washington, D.C. based consulting and lobbying firm, and is now working on her own, including as an associate of the Green Power Institute.

Decision D.98-04-059 states, on pgs. 33-34, "Participation must be productive in the sense that the costs of participation should bear a reasonable relationship to the benefits realized through such participation. ... At a minimum, when the benefits are intangible, the customer should present information sufficient to justify a Commission finding that the overall benefits of a customer's participation will exceed a customer's costs." This proceeding was concerned with preparing the way to the commercialization of a new set of technologies, collectively called storage, that have the potential to revolutionize the way the integrated electricity grid is operated. If successful, the efforts that have begun in this proceeding have the potential to save ratepayers millions of dollars annually in terms of reduced costs of grid operations, and to do so without any incremental emissions of greenhouse gases. These cost reductions overwhelm the cost of our participation in this proceeding.

#### b. Reasonableness of Hours Claimed.

The GPI made Significant Contributions to Decisions D.12-08-016, and D.13-10-040 by participating in working groups, and providing a series of Commission filings on the various topics that were under consideration in the Proceeding, and are covered by this Claim. Attachment 2 provides a detailed breakdown of the hours that were expended in making our Contributions. The hourly rates and costs claimed are reasonable and consistent with awards to other intervenors with comparable experience and expertise. The Commission should grant the GPI's claim in its entirety.

| 1. Identify applications (use cases), develop storage-specific targets | 14% |
|--|-----|
| 2. Identify barriers to the development / deployment of storage        | 10% |
| 3. Setting targets for storage   | 38% |
| 4. Define eligibility rules for storage targets                        | 11% |
| 5. Change the loading order to include storage                         | 6%  |
| 6. Limits on utility ownership of storage                              | 14% |
| 7. Use of the RAM for the solicitation of storage installations        | 7%  |

# B. Specific Claim:

| CLAIMED       |             |            |             |   |              |                 | CPUC Aw            | ARD      |  |
|---------------|-------------|------------|-------------|---|--------------|-----------------|--------------------|----------|--|
|               |             | AT         | TORNEY      | , EXPERT, AND A   | DVOCATE      | FEES            |                    |          |  |
| ltem          | Year        | Hours      | Rate \$     | Basis for Rate*   | Total \$     | Hours           | Hours Rate \$ Tota |          |  |
| G. Morris     | 2011        | 58.0       | 240         | D.11-07-025   | 13,920       |                 |                    |          |  |
| G. Morris     | 2012        | 49.5       | 245         | D.13-05-009   | 12,128       |                 |                    |          |  |
| G. Morris     | 2013        | 175.0      | 250         | See comment 1   | 43,750       |                 |                    |          |  |
| V. Whiddor    | 2011        | 9.75       | 70          | D.13-05-009   | 683          |                 |                    |          |  |
| V. Whiddor    | 2013        | 15.5       | 75          | See comment 2   | 1,163        |                 |                    |          |  |
|               |             |            |             | Subtotal: \$  | 5 71,644     |                 | Subtotal: \$       |          |  |
|               |             | INTERVE    | NOR CC      | MPENSATION CL   | -            | PARATIO         |                    |          |  |
| ltem          | Year        | Hours      | Rate \$     | Basis for Rate*   | Total \$     | Hours Rate Tota |                    | Total \$ |  |
| G. Morris     | 2013        | 16         | 125         | 1/2 rate for 2013   | 2,000        |                 |                    |          |  |
|               |             |            |             | Subtotal:   | \$           |                 | Subtotal: \$       | ;        |  |
|               |             |            |             | COSTS   |              |                 |                    |          |  |
| # ]           | tem         |            | De          | tail  | Amount       |                 | Amoun              | t        |  |
| Postag        | <i>je</i>   | See attach | ment 2      |   | 27           |                 |                    |          |  |
| •             |             | TOTA       |             | ST: \$ 73,671   |              | TOTAL A         | WARD: \$           |          |  |
| *If hourly ra | ate based o | on CPUC o  | lecision, p | d text; add additional<br>rovide decision numt<br>n time are compensa | per; otherwi | se, attach i    |                    | ly rate. |  |

C. Attachments Documenting Specific Claim and Comments on Part III (Claimant completes; attachments not attached to final Decision):

| Attachment or<br>Comment # | Description/Comment  |  |
|----------------------------|--|--|
| Comment 1                  | Res. ALJ-287 provides for a 2013 COLA of 2% over 2012 rates, resulting in a 2013 rate of \$250/hr (rounded to the nearest five, per D.13-05-009)   |  |
| Comment 2                  | Res. ALJ-281 provides for a 2012 COLA of 2.2% over 2011 rates, and Res. ALJ-287 provides for a 2013 COLA of 2% over 2012 rates, resulting in a 2013 rate of \$75/hr (rounded to the nearest five, per D.13-05-009) |  |
| Attachment 1               | Certificate of Service   |  |
| Attachment 2               | Allocation of effort by issue, list of pleadings, breakdown of hourly efforts, expenses  |  |

D. CPUC Disallowances, Adjustments, and Comments (CPUC completes):

| ltem | Reason |
|------|--------|
|      |        |
|      |        |

### PART IV: OPPOSITIONS AND COMMENTS

Within 30 days after service of this Claim, Commission Staff

or any other party may file a response to the Claim (see § 1804(c))

#### (CPUC completes the remainder of this form)

| · · · · · · · · · · · · · · · · · · ·          |  |
|--|--|
| A. Opposition: Did any party oppose the Claim? |  |
|  |  |

If so:

| Party | Reason for Opposition | <b>CPUC</b> Disposition |
|-------|-----------------------|-------------------------|
|       |                       |                         |
|       |                       |                         |

| B. Comment Period: Was the 30-day comment period waived (see |  |
|--|--|
| Rule 14.6(2)(6))?  |  |
|  |  |

If not:

| Party | Comment | CPUC Disposition |
|-------|---------|------------------|
|       |         |                  |
|       |         |                  |

# FINDINGS OF FACT

- 1. Claimant [has/has not] made a substantial contribution to Decision (D.) \_\_\_\_\_\_.
- 2. The requested hourly rates for Claimant's representatives [,as adjusted herein,] are comparable to market rates paid to experts and advocates having comparable training and experience and offering similar services.
- 3. The claimed costs and expenses [,as adjusted herein,] are reasonable and commensurate with the work performed.
- 4. The total of reasonable contribution is \$\_\_\_\_\_.

# **CONCLUSION OF LAW**

1. The Claim, with any adjustment set forth above, [satisfies/fails to satisfy] all requirements of Public Utilities Code §§ 1801-1812.

## <u>ORDER</u>

- 1. Claimant is awarded \$\_\_\_\_\_.
- 2. Within 30 days of the effective date of this decision, \_\_\_\_\_\_\_ shall pay Claimant the total award. [for multiple utilities: "Within 30 days of the effective date of this decision, ^, ^, and ^ shall pay Claimant their respective shares of the award, based on their California-jurisdictional [industry type, for example, electric] revenues for the ^ calendar year, to reflect the year in which the proceeding was primarily litigated."] Payment of the award shall include compound interest at the rate earned on prime, three-month non-financial commercial paper as reported in Federal Reserve Statistical Release H.15, beginning [date], the 75<sup>th</sup> day after the filing of Claimant's request, and continuing until full payment is made.
- 3. The comment period for today's decision [is/is not] waived.
- 4. This decision is effective today.

Dated \_\_\_\_\_, at San Francisco, California.