Resource-Specific Approach

1)		**General Accounting**
RA		**Definition of GHG zone and participation model:**
RA-1	**6C**	Six Cities: For each of the potential approaches, will the approach accommodate self-scheduling of resources?
RA-2	**BPA**	BPA: How specifically does this work for multi-state BAAs, i.e. how will the WA load in BPA's BAA be identified (nodes?) and how will the volume of resources deemed delivered to those loads be calculated? And how will BPA's resources be modeled (under WA cap and trade, BPA's system – and generating units – are all considered imports to the state.
RA-3	**PAC**	PAC: How would CAISO determine GHG net exports for a single state in a multi-state BA for the purposes of limiting GHG-attribution (in the resource-specific GHG attribution enhancement)?
RA-4	**PGP**	PGP: How will emission rate attribution be determined for the different participation options: imports at EDAM boundaries, jointly owned units, wheel throughs, etc.
RB		**Voluntary participation/Emissions attribution**
RB-1	**PGP**	PGP: If/how will this approach allow a utility the ability to direct where energy is accounted for?
RB-2	**PGP**	PGP: How will this approach preserve the ability to sell non-emitting surplus into a GHG zone?
RB-3	**SRP**	SRP: Would a system approach use a system aggregated carbon metric? region aggregated carbon metric? or would it use a resource specific metric?
RC		**Multiple GHG zones:**
RC-1	**BPA**	BPA: When there are multiple state GHG areas (e.g. WA and CA), how will the algorithm determine and prioritize which resources are deemed to which GHG area?
RC-2	**PGP**	PGP: Can this approach accommodate multiple GHG zones/areas, and if so, how will that work?
RC-3	**WRA**	WRA: How can the optimization model be adjusted to account for 2 states with carbon price signals (with different compliance programs) and the others aren't?
RC-4	**PAC**	PAC: When will an emitting resource in a GHG zone ever get dispatched to another GHG zone when it appears "ripe" for double counting of emission offsets? In other words, how do ensure that the resources are not paying twice – once for CA and once for WA?

2)		**Approach-specific Issues**
RD		**Baseline for evaluation of attribution:**
RD-1	**APS**	Generally, how do you set the baseline in the day ahead framework? When optimizing a solution for a BA (to assess resource sufficiency), does that set your baseline for GHG accounting?
3)		**Secondary Dispatch and Other Consequences**
RG		**Secondary dispatch and leakage minimization**
RG-1	**PGP**	PGP: How will this approach avoid secondary dispatch concerns?
RG-2	**SCE**	SCE: What can the ISO do to further reduce the frequency and impact of this dispatch attribution?
RG-3	**6C**	Six Cities: For each of the potential approaches, how does the approach compare with the GHG accounting and pricing mechanisms currently applied in the Energy Imbalance Market in terms of benefits/enhancements and additional burdens/complexities?
RG-4	**WRA**	Does the resource specific approach leverage the existing EIM framework for GHG accounting ? If so, how will the concerns of deemed versus delivered be addressed, that result in fossil-fuel resources being dispatch when, deemed resources would have prioritized clean energy resources?
RG-5	**APS**	APS: What level of accuracy does specified need to be for it to be useful as differing zones develop to prevent leakage and/or double counting? Is this level of accuracy achievable in the market?
4)		**Reporting and Settlements**
RH		**Alignment with state reporting requirements**
RH-1	**CRS**	CRS: How does resource-specific attribution of generation to zones/load/transfers get harmonized/reconciled with other instruments used for tracking generation to load, specifically RECs for tracking renewable generation (and associated emissions) to load, to avoid double counting?
RH-2	**6C**	Six Cities: For each of the potential approaches, what process can be developed to ensure that LSEs and other market participants subject to California GHG and Renewable Portfolio Standards regulation will receive data necessary to satisfy compliance obligations?
RH-3	**SRP**	SRP: How would energy be identified/tracked or tagged under a specified approach?
RH-4	**WRA**	WRA: Do we have to account for RPS requirements in market optimization?

RI		**Settlements**
RI-1	**SRP**	SRP: How would an entity be made whole for purchasing credits?

Unspecified/Zonal Approach

1)		**General Accounting**
UA		**Definition of GHG zone and resource participation model:**
UA-1	**BPA**	BPA: How would the boundaries of the GHG zone be defined?
UA-2	**SCE**	SCE: California imports significant volumes, both renewable and emitting, from out of state. Some imports are self-scheduled, some are bid into the market. How will these transactions be treated under the unspecified approach? If the hurdle rate is not met would these imports be deemed to have transferred into California?
UA-3	**6C**	Six Cities: For each of the potential approaches, will the approach accommodate self-scheduling of resources?
UA-4	**PAC**	PAC: What will the methodology for determining resources within a GHG zone (and the option to move between a GHG zone and a non-GHG zone) look like?
UA-5	**WRA**	WRA: How can the optimization model be adjusted to account for 2 states with carbon price signals (with different compliance programs) and the others aren't?
UB		**Voluntary participation/Emissions attribution**
UB-1	**CISO**	CAISO: Could scheduling coordinators for resources subject to a hurdle rate signal a willingness to sell power to demand within a GHG Regulation Area and accept a pro-rata allocation of transfers to serve demand within the GHG Regulation Area?
UB-2	**CISO**	CAISO: How are imports into the GHG Regulation Areas limited by the "willingness" of supply resources outside of them to participate in their program and be regulated for their attributed import?
UC		**Multiple GHG zones:**
UC-1	**CISO**	CAISO: If multiple GHG Regulation Areas are collapsed into a single area, how would the import into that area be allocated to the various GHG Regulation Areas?

2)		**Approach-specific Issues**
UE		**Hurdle rate:**
UE-1	**APS**	APS: Can we negotiate our own specified emissions rate by entity? CARB had or has a process for calculating and reviewing a specified rate. Could an entity develop its own specified rate with the appropriate approvals? Does the unspecified and hurdle rate work with differing obligations and credits to generation? If you do unspecified and a hurdle rate with a cost that applies across a GHG zone (which can be multiple states) does that assume that you have to have a similar carbon allowance purchase obligation and carbon cost?
UE-2	**CISO**	CAISO: What is the design and proposal for a hurdle rate? Would this paradigm create different hurdle rates for the optimization to consider? Would the proposed hurdle rate be dynamic or static? The CAISO encourages the use of examples and scenarios in responding to this question, including: Example 1: What if different GHG Regulation Areas impose different emission costs? Would there be two hurdle rates, or if not, how would these be consolidated into a single hurdle rate? Example 2: If transfers attributed to specific resources or asset controlling suppliers satisfied the transfers necessary to meet demand in the GHG Regulation Area, would these resources set the marginal GHG price as opposed to an unspecified source hurdle rate?
UE-4	**CISO**	CAISO: Could the proposal allow sellers of power into a GHG Regulation Area to utilize a different emission rate (*e.g.* an asset controlling supplier emission rate or a resource- specific emission rate based on eligibility criteria) to support transfers into a GHG Regulation Area? What would eligibility criteria include? Would self-scheduled power qualify for a resource specific emission rate?
UE-5	**CISO**	CAISO: Under this paradigm would it be possible that a resource specific-emission rate could be higher than an unspecified source emission rate (e.g. from a coal-fired resource)? If both supported transfers into a GHG Regulation Area, which would establish the GHG marginal price and payment to EDAM scheduling coordinators?
UE-6	**CRS**	CRS: Are out-of-zone clean resources that are "assigned to the zone" backed out of the unspecified rate (i.e. "the calculation of imports reflects that [the out-of-zone resources are] in the zone")?
UE-7	**CRS**	CRS: Is the unspecified emissions rate being used to "allocate" that rate to electricity delivered to the GHG zone or for load-based accounting by CA (or any kind of claim/reporting by the state, e.g. representing the attributes of what is delivered to CA)?

UE-8	**PAC**	PAC: How will the GHG hurdle rate be calculated and how often? Will it be published?
UE-9	**PGP**	PGP: How will the hurdle rate be determined and what are the considerations that must be addressed in setting this rate?
UE-10	**SCE**	SCE: How can a hurdle rate be designed to be fair to all resources? For example, is it reasonable to attribute a non-zero emissions factor to a zero-emitting resource?
UE-11	**SCE**	SCE: What other determinants could there be to determine a market hurdle rate besides the GHG zone emission costs?
UE-12	**SRP**	SRP: How would hurdle rates be calculated and implemented?
UE-13	**WRA**	WRA: If two calculations are used (GHG price within GHG zones and GHG price and intensity for hurdle rate), then, why wouldn't a second optimization step be needed?
UE-14	**WPTF**	WPTF: Is it possible to use one emissions rate for determining the hurdle rate (for purposes of allowing transfers and settlement at a marginal emissions rate) and a different emissions rate for attribution of emissions to the transfer (for purposes for compliance under the program, using a residual average emissions rate)?
UE-15	**PAC**	PAC: How to deal with equity issue if LSE are able to "elect" low-emitting resources in a GHG to serve their load and non-dispatched low emitting resources in non GHG zone? How are renewable resources distributed equitably if there are multiple GHG zones?
UF		**Alternative pathway to serve GHG zone:**
UF-1	**BPA**	BPA: What are the ways that a clean or low-carbon resource can be imported into the GHG zone? (Such as an application of rules to determine when there is actually surplus resource or when there is an existing bilateral contract with load in the GHG zone.)
UF-2	**BPA**	BPA: Can entities voluntarily opt-in?
UF-3	**PGP**	PGP: What are the criteria for resources outside the zone to be included inside the zone?
UF-4	**PGP**	PGP: How will this approach preserve the ability to sell non-emitting surplus into a GHG zone?
UF-5	**SDGE**	SDGE: We want a better understanding of the Voluntary Portfolio Opt-in. Does Opting-in only affect EDAM? Or would an Opt-in entity be opting into the GHG Zone's GHG compliance program? (In the current case, would the entity now be subject to CA's Cap-and-Trade program?).

3)		**Secondary Dispatch and Other Consequences**
UG		**Secondary dispatch and leakage minimization**
UG-1	**BPA**	BPA: How would this option (once explored a bit further) meet state regulators needs and interests for their programs? Does it properly address the secondary dispatch concerns and are they willing and able to revisit some of their regulations to accommodate what appears to be a different way of accounting and reporting organized market imports.
UG-2	**CISO**	CAISO: In what specific way does this approach reduce or limit secondary dispatch? Would the proposal shift concerns about secondary dispatch from the day-ahead and real-time markets into the forwarding contracting horizon?
UG-3	**CISO**	CAISO: In what specific way does this approach provide advantages to zero or low-emitting resources as compared to high-emitting resources outside GHG Regulation Areas?
UG-4	**CISO**	CAISO: Would the proposal make it less valuable to offer non-emitting surplus supply to support transfers to serve demand in the GHG Regulation Areas through day-ahead and real-time markets?
4)		**Reporting and Settlements**
UH		**Alignment with state reporting requirements**
UH-1	**BPA**	BPA: How would this option (once explored a bit further) meet state regulators needs and interests for their programs?
UH-2	**CISO**	CAISO: What entities would have the reporting obligation for those imports (i.e. imports into multiple GHG Regulation Areas that are collapsed into a single area)? How would these entities allocate this responsibility and the MWs to their supply resources scheduled in EDAM in order to not disadvantage jurisdictions in a non-GHG Regulation Area?
UH-3	**PAC**	PAC: How will the GHG obligations for imports into a GHG zone be assigned?
UH-4	**PGP**	PGP: How will GHG information be reported?
UH-5	**SDGE**	SDGE: If the entity is opting into the statewide program, then the state regulation would need to be updated to accommodate entities outside their natural jurisdiction(s). In the case of California, do we know if CARB would consider expanding Cap-and-Trade to entities external to California?
UH-6	**6C**	Six Cities: For each of the potential approaches, what process can be developed to ensure that LSEs and other market participants subject to California GHG and Renewable Portfolio Standards regulation will receive data necessary to satisfy compliance obligations?
UH-7	**SRP**	SRP: Who would be responsible for reporting?

UI		**Settlements**
UI-1	**CISO**	CAISO: Under the proposal, could the CAISO collect revenue from load within the GHG Regulation Area associated with transfers to the GHG Regulation Area and pay sellers of power?
UI-2	**CISO**	CAISO: What would be the settlement impacts from EDAM to EIM under the hurdle rate approach?
UI-3	**SRP**	SRP: Who pays for GHG reporting?
5)		**Miscellaneous**
UK		**Alignment with EIM:**
UK-1	**CISO**	CAISO: How does this approach align with the GHG Regulation model employed in EIM?
UK-2	**SCE**	SCE: Does it make sense to have EIM working as it currently does with a resource specific approach and potentially have EDAM operate differently? What type of seams issues may arise? Would entities choose to bid or schedule their resources into EDAM vs EIM differently?
UZ		**Miscellaneous**
UZ-1	**PAC**	PAC: What will the methodology for determining resources within a GHG zone (and the option to move between a GHG zone and a non-GHG zone) look like?

A		Foundational questions
A-1	BPA	BPA: And in a related vein, what are the thresholds for state regulators accepting this level of secondary dispatch and not applying an "outstanding emissions calculation" like CARB currently does for EIM imports?
A-2	PAC	PAC: Why can't the resources that are actually dispatched above base schedule be used to deem the GHG obligation?
A-2	SCE	SCE: SCE understands that emitting resources may be dispatched up in the EIM while renewable resources may be deemed to deliver to California in their place. How often does this occur? How large is the impact of this type of dispatch attribution?
A-3	SCE	SCE: If there are renewables that are deemed to be delivered to CA when emitting resources are dispatched elsewhere by the EIM, how well does the out-of-market action (e.g. CARB' pro-rata reduction of LSE's annual GHG allowance reduction) account for this?
A-4	SDGE	SDGE: Why is the current EIM incorrectly "deeming" power as delivered to CA when its base schedule shows 100% delivery outside of CA? Which resource types are being affected? Are the errors leading to an over or under estimation of GHGs? Is this error fixable? If so, can we fix the EIM GHG Accounting system and export it to EDAM as the Resource Specific approach?
A-5	PAC	PAC: If CARB and Washington Department of Ecology looks at the GHG attribution enhancement and don't feel that it minimizes leakage enough, will they still apply an outstanding emissions calculation? And if so, what benefit remains to this enhancement?
A-6	BPA	BPA: How does the EDAM method for minimizing leakage compare to the EIM method? Does the CAISO expect the secondary dispatch level to be more, less, or about the same?
A-7	SDGE	SDGE: CARB ultimately signed-off on the current EIM GHG accounting structure despite its inaccuracies. Powerex claims that expanding the current Resource Specific EIM system to EDAM would result in inaccuracies that are too great. To date, has CARB been consulted on whether the existing GHG accounting system on a larger footprint would be acceptable or corroborate Powerex's concerns? CARB is the California entity responsible for GHG accounting and their opinion on the viability of any proposals should be provided to adequately weigh any options.