

**Comments received on EMIX WD06**  
**Section 1 – from SGIP PAP03 Working Group**

**Key to Source:**

- MW Matt Wakefield
- A Aaron Snyder
- BB Bruce Bartell
- SD Sharon Dinges
- B Bill Cox

line #	Class	Source	existing language/observation	proposed change
246	S	BB, A	Should be a definition. Looks like it includes 249-253. If it doesn't include those, it isn't a warrant? Or are these examples of assertions.	
235-236		MW	Simplest - confused that the meter is including prices	
235-236		MW, A	Simplest - confused that the meter is including prices. Confusing because the intrinsic elements include Meter ID--what is it? Can't tell.	Define what information the meter can provide.
235-236		MW	Who's the source of the information on intrinsic quality of energy. If the meter provides, the only thing provided is meter id?	Define what information the meter can provide.
235-236	Conflict	A, BB, MW, SD	Conflicts with table 2.1 on elements. Not precise enough to tell us what them mean. Price is in their twice. Price is not a quality, extended price is not.	If price is intrinsic should appear in the table. In the note, not the table. 2, what information can the meter provide that's being talked about?
237	Word ing	A	Is it normal to use personal pronouns?	Avoid personal pronouns in document.
238	Word ing	A	We anticpate versus "it is anticipated"	
244, 237	Word ing	A	Avoid "dumb devices" unless you define "smart devices"	
All	Word ing	A, SD	Extrinsic and intrinsic. Not clear what they mean. Extrinsic isn't used much, doesn't tell me a lot. Confusing as to what's on and in the envelope. Artifacts at CW clarify that, but still seems backwards. Definition at 240-253 (through warrants).	
All		MW	Seem to be using energy when we mean power. Not a big deal in some sentences.	
		MW	Block AC power section "normally kwh" - rate is kw, not kwh. It's right on DC.	
All	Clarification	A	Define "power flow" and "energy flow" and then use the terms correctly when you use them. Energy flow includes more than electricity. Define energy, then power, make consistent. See A markup of document.	

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246-253	Defect	BB	Warrants definition confusing	Suggest that these are examples of assertions, not of warrants.
246-253	Defect	A	Warrents by an authority, then define types of assertions.	An assertion is defining a source, ... - def of an assertion, or an example. A warrant is an assertion made by an authority and an assertion.
246-253	Defect	A	Is there a definition of "authority"?	
255-256	Clarification	A	"degenerate set" is unclear.	Correct wording to eliminate "degenerate"
255	Wording	A	Not a sentence.	Verb?
258	Defect	A	Says "Time"	Should be "Time and Interval"
260	Wording	SD	Personal pronoun - "we"	Reword
259	Defect	A	RFC 5545 should be in Normative References List	make it so
260	Defect	WTC	Ref to xCal should be normative, bold and square brackets. Is it IETF xCal? Should only be one form.	Use correct form for references, and referring to reference in document
260	Defect	A,WTC	If iCalendar is a normative reference, should be listed. Is RFC 5545 the correct reference?	
262	Defect	A	WS-Calendar missing square brackets	
264-265	Clarification	A	Delete this sentence starting "If time permits", and PAP10 is the wrong reference.	
264	Clarification	SD	"from developing work"	
266	Clarification	A	Delete "as this is written..."	
266-270	Clarification	A, MW	Energy models., unclear what is meant. Energy MODELS or Energy ARTIFACTS? One of those should be in caps/bold.	Say 266-270: Energy Models are defined in Section 3. Or "The Energy Artifacts are defined in Section 3".
All	Clarification	A,B	Meter ID etc shouldn't have spaces	Eliminate spaces for Artifact names in document
All	Conflict	A	Section 3, Energy Models, etc	?
272		A	Defined above extended price. Should be in Bold "(EmixIntervals)" See one way with a space and caps, one way without.	
272	Wording	B	"is used as defined..." and WS-Calendar in brackets.	
271	Clarification	A, MW	EMIX intervals - just defining time? Will this be the same as WS-Calendar intervals? This is confusing.	

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279	Clarification	A	EMIX Periods - clarify relationship with interval set and interval in WS-Calendar. Will help the reader.	
271	Defect	MW	Looking at table (2.1) says time the product is or will be available, and the type of product. Here it doesn't say product.	
277	Conflict	SD	Energy Artifacts. Same table in the notes, have "energy artifacts" - is that supposed to be lower case?	
279	Clarification	A	EMIX Period is undefined except on line 280. The rest of 280-282 is an example, but not labeled as an example (so it seems normative). Worse, it appears to be an application of the example. Then EMIX Period references period in WS-Calendar - if it's the same why call it "EMIX Period"? Don't want to think that separate code is needed for WS-Calendar and EMIX	
279	Clarification	SD	Relationship to EMIX Intervals - not clear	
284	Wording	A	Not an English sentence. "are can use"	
284	Wording	B	Talking about intervals again. Copy/paste? Repeats text on intervals	
271, 279	Defect	A	Define EMIX Interval, then say "as in WS-Calendar" - only because it includes product information?	
271, 279	Defect	MW	Why providing a new def of a comb of interval, period, and energy information? This is not well composed.	
291	Conflict	SD	EmixIntervals explanation is non normative in the table	
289	Wording	A	Capitalize element, so "Intrinsic Elements". Also, Table 2-1 specifies the... (not [following]	
289	Wording	A	is element...an Element?	XML element definition
287	Defect	B	"This table..." is confusing and should be deleted.	
		A	Section 2 is "information model", 2.2.2. confuses.	
287	Defect	B, BB	Extensibility and Evolvability has to be in the document	
All	Defect	A, all	No spaces in element names in tables etc	
291	Conflict	A, SD	Heading "EMIX Element" is confusing	Could be "Name", "Intrinsic Element", or no heading.
291	Conflict	A	ebCore Party ID - what is this? With or without a space?	Specification; calling out what it is.

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291	Defect, Conflict	A	The use of Specification and Note creates conflicts. Often what's in Note is a better explanation. E.g. Currentcy - Gives examples of codes but not currency. Note on Meter has nothing to do with MeterID. In some cases it's not clear . E.g. timestamp - refer to a def or define it. Time produced - what form/date?	Improve the structure of the tables. See editorial markup from A.
291	Defect	Bill	Use e.g. CIM Document Creationi Date	
	Wording	A	Is there any significance to the order of the table?. Name, definition, note.	If order not important, alphabetize. Clarify.
291	Defect	A	Energy Type and Energy Artifact refer to each other	Fix it
291	Defect	A	Point of Delviery is not defined.	Define. Use IEC CIM definition if possible.
291	Defect	MW	What is the value of point of delivery? Location or source?	
291	Defect	BB	Is this directed at a specific customer? Refer to FOB/point of delivery. Forward reference is a problem.	
291	Defect	BB	Relatoin of EMIX intervals to extended price is unclear. Sum of all "energy"? That's in the NOTE for extended price. Where is Rate of delivery defined?	Note: TeMIX document proposed different model - price for a certain amount of power over a certain time period, here a summary.
291	Defect	Bill	Explanation of extended price must be in the document.	
291	Defect	A	Delivery Interval is undefined in Extended Price. Price is not defined. Price, price bid, from characteristic? Price needs to be defined.	Definition in the document, or not capitalized.
291		MW	Confusing to intrinsic outside the envelope	
291	Conflict	A, BB	How is the envelope intrinsic?	Logical envelope is what I write on the things that inside... :-) Moebius envelope?
295	Wording	A	"Table 2.2 specifies the Extrinsic Elements"	
295	Clarification	SD	Need similar wording to Intrinsic section	
298	Clarification	A	normative optional elements? Warrant list is the container for an array of warrants and its optional. First time seen it - is that what's meant?	
298	Clarification	SD	Is everything not marked as optional required?	
298	Clarification	A, all	Apply comments from Table 2-1 to all tables	
298	Clarification	A	"Energy Quality is defined in Section 3* -- see a list of things with references.	

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298	Defect	BB	Reference to section 4 - no content.	
298	Wording	BB	There is no definitive list of warrants. Say why :-)	
298	Clarification	A	Program - not clear what this means. Market ID is undefined also.	Name is a Program? URI?
298	Defect	A	Should MarketID be on the envelope? It isn't.	
All	Defect	Bill	Inside/outside/subset must be clear	
304	Defect	A	Delete - bilateral agreements are not discussed.	
305-306	Defect	A	Unless meant to be completed should go away.	
302	Defect	A, BB, SD, Bill	Maybe examples of classification? Not warrant information examples, or elements. First column heading is wrong. "Name" and "Description"? Combine the two columns. Or make them examples at the start of section 4. Is second row a botched header? "Content Warrant" -- what is this? Green Warrant? State issues?	Prefer list of URIs that point at different warrant types. And move to section 4.
311		MW, A	Rate of delivery, units are kWh versus kW - should have energy and power. (look at the way ISOs sell products)	Split into power and energy
311		A	Wouldn't repeat "Artifact" in subheadings because that's confusing.	
311	Defect	A	See diagram in notes. Power leads to energy, mixed up and confusing. High level construction doesn't work-- reactive load is an element of AC power, not on its own. High level organizational issues and the way engineers think about this. Does this match market approaches?	Consider from simple to complex, start with DC.
311	Defect, Clarification	A	Call it "Block Power" - AC and DC is confusing. Block ENERGY - MWh are not Power, they are ENERGY. As soon as you put time on it it's Energy not power. First Energy Artifact is MWh, being bought and sold. Delivery type may be AC or DC - unimportant to many people. (Lake analogy - water coming in/going out)	3.1 Energy; Block Energy. The way the MWh is transported is not important. For kWh, DC may be important, but attribute - power electronics make it so you don't care. DC has unit power factor - worth more - but a characteristic of the energy itself.
311	Defect	A	Power Quality includes many things, including Power Factor. Non-normative note on Power factor is roughly correct.	Will provide editorial structure as a comment. Consider distribution at the end.
226	Defect	A (MW)	Rate of delivery is a red flag.	Fix it.
364		A	Delivery loss: . Then read line 353. And see picture.	"Loss per unit of distance"

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366	Defect	A	"and a distance for transmission" - transmission is used twice. Energy distribution artifact - attributes under Power and Energy	
311	Word ing	A	Section rewrite suggestion	3.0 Power and Energy Artifacts; 3.1 Power (Block AC/DC, Full AC/DC); 3.2 Energy (Block AC/DC, Full AC/DC), 3.3 Power Quality, 3.4 T&D
336	Clarification	Bill	Is it meant to be implied that Block Energy is at an exact and consistent delivery rate? Is that indeed part of the market description of a product today (or anticipated)? Is it captured in Min/Max rate on 346?	
311	Word ing	SD,A	Rate of delivery for block, min/max, combine. For full is power table plus ...	
311	Word ing	A, BB	Power Quality - how does it fit? See 389, no DC power quality. But e.g. IEEE spec applies.	
311	Word ing	A	Tie not to just WS-Calendar but to some ISO/RTO language. FERC needs language they can tie to. Make sure element portion makes sense	
246	Clarification	BB, A		Should be a definition. Looks like it includes 249-253. If it doesn't include those, it isn't a warrant? Or are these examples of assertions.
235-236	Clarification	MW		Simplest - confuse that the meter is including prices

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### Other Comments

My comments are inline below. Thank you.

Section	Line#	Text	Existing Language/Observation
2.2.2	Intrinsic elements	Wouldn't a price per rate of delivery e.g. \$x/MWH at yMW be more explicit than total cost. It also supports next comment.	
2.2.2	Intrinsic elements	How does this model doesn't support bid curves - monotonically increasing prices for energy for increasing delivery rates	
2.2.2		The CAISO market has a three part bid that includes start-up cost and min load compensation. They can't be taken separately.	
2.2.2		I don't see the unit/resource identifiers. These are necessary to discover registered quantities as registered in 3.1	
2.2.2	OpeGML	Reference?	
2.2.2		An attribute for firm/non-firm would be useful, not sure if that's intrinsic or not.	
2.2.3	IEEE 1159	Reference?	
3.1.1	AC Power	Market does not distinguish between AC and DC delivered power, most attributes here are applicable to both.	
2.2.2		CAISO also provides the ability to "bid" reduced performance attributes (e.g. ramp rates, start up time) that are lower than registered values for a unit. Does this need to be called out explicitly?	
Line 366	distance for transmission	Duplicated?	

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**Committee Member Comments**

Ed Cazalet's Comments

<http://lists.oasis-open.org/archives/emix/201006/msg00001.html>

Download Document:

<http://www.oasis-open.org/committees/download.php/38115/emix-1.0-spec-wd-06-temix-comments-cazalet.pdf>



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