



EMIX Version 1.1

Working Draft

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Technical Committee:

OASIS Energy Market Information Exchange TC

Chair(s):

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Editor(s):

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- N/A

This specification is related to:

- OASIS Specification WS-Calendar V1.0, in process
- OASIS Specification Energy Interoperation V1.0, in process

Declared XML Namespace(s):

<http://docs.oasis-open.org/emix/ 2009interim>

Abstract:

[Summary of the technical purpose of the document]

The data models and XML vocabularies defined by this TC will address issues in energy markets and the Smart Grid, but may be defined so as to support requirements for other markets. The TC will develop a data model and XML vocabulary to exchange prices and product definitions for transactive energy markets.

- Price information
- Bid information
- Time for use or availability
- Units and quantity to be traded
- Characteristics of what is to be traded

42 The definition of a price and of other market information exchanged depends on the market
43 context in which it exists. It is not in scope for this TC to define specifications for markets or how
44 prices are determined, or the mechanisms for interoperation. The TC will coordinate with others
45 to ensure that commonly used market and communication models are supported.

46 **Status:**

47 This document was last revised or approved by the Energy Market Information Exchange
48 Technical Committee on the above date. The level of approval is also listed above. Check the
49 “Latest Version” or “Latest Approved Version” location noted above for possible later revisions of
50 this document.

51 Technical Committee members should send comments on this specification to the Technical
52 Committee’s email list. Others should send comments to the Technical Committee by using the
53 “Send A Comment” button on the Technical Committee’s web page at [http://www.oasis-](http://www.oasis-open.org/committees/emix/)
54 [open.org/committees/emix/](http://www.oasis-open.org/committees/emix/).

55 For information on whether any patents have been disclosed that may be essential to
56 implementing this specification, and any offers of patent licensing terms, please refer to the
57 Intellectual Property Rights section of the Technical Committee web page ([http://www.oasis-](http://www.oasis-open.org/committees/emix/ipr.php)
58 [open.org/committees/emix/ipr.php](http://www.oasis-open.org/committees/emix/ipr.php)).

59 The non-normative errata page for this specification is located at [http://www.oasis-](http://www.oasis-open.org/committees/emix/)
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118 1 Introduction

119 This document defines a set of messages to communicate price and product definition for energy
120 markets. Product definition includes quantity and quality of supply as well as attributes of interest to
121 consumers distinguishing between energy sources. Energy Market Information Exchange (EMIX) is not
122 intended as a stand-alone signal, rather it is anticipated to be used as an informational component in a
123 variety of market oriented interactions.

124 The Energy Market Information Exchange TC is developing this specification in support of the National
125 Institute of Standards and Technology (NIST) Smart Grid Interoperability Road Map in support of the US
126 Department of Energy (DOE) as described in the Energy Independence and Security Act of 2007 (EISA
127 2007).

128 All examples and all Appendices are non-normative.

129 1.1 Terminology

130 The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD
131 NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described
132 in [RFC2119].

133 1.2 Process

134 This information exchange was developed primarily by integrating product definitions developed by the
135 North American Energy Standards Board (NAESB) as part of its response to eh NIST process dnamed
136 above.

137 Wherever appropriate, semantic elements from the IEC Power Load Management (TC 57) Common
138 Information Model. Business and market information was borrowed from the financial instruments CIMs
139 as described in ISO20022 and in the financial trading protocol FIX (Financial Information Exchange).

140 Energy markets are volatile, so precise time of delivery is always a significant component of product
141 definition. EMIX incorporates schedule and interval definitions from WS-Calendar to communicate
142 schedule-related information.

143 Additional guidance was drawn from subject matter experts familiar with the design and implementation of
144 enterprise and other systems that may interact with smart grids.

145 1.3 Normative References

- 146 [RFC2119] S. Bradner, *Key words for use in RFCs to Indicate Requirement Levels*,
147 <http://www.ietf.org/rfc/rfc2119.txt>, IETF RFC 2119, March 1997.
148 **WS-Calendar** [Full reference citation]

149 1.4 Non-Normative References

- 150 **NAESB Price & Product** [Full reference citation]
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2 Information Model

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2.1 Required Elements

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The follow table specifies the REQUIRED constraints placed by the EMIX v1.0 message. This table contains only those elements of EMIX v1.0 for which there is a consensus-derived description. Elements not included here simply have no specific constraint or condition in the use.

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Table 1: EMIX v1.0 Information Model

EMIX Element	Specification (Normative)	Note (Non-Normative)

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165 **2.2 Defined Optional Elements**

166 The follow table specifies defined OPTIONAL elements in an EMIX v1.0 message. This table contains
167 only those elements of EMIX v1.0 for which there is a consensus-derived description. If the information as
168 defined here is included in the EMIX v1.0 message, it SHALL use these element names and definitions.
169 The use of these elements has no specific constraint or condition in use.

170 *Table 1: EMIX v1.0 Information Model*

EMIX Element	Specification (Normative)	Note (Non-Normative)

171
172

173 **# Conformance**

174 The last numbered section in the specification must be the Conformance section. Conformance
175 Statements/Clauses go here.

176 **A. Acknowledgements**

177 The following individuals have participated in the creation of this specification and are gratefully
178 acknowledged:

179 **Participants:**

180 [Participant Name, Affiliation | Individual Member]

181 [Participant Name, Affiliation | Individual Member]

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B. Non-Normative Text

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C. Revision History

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Revision	Date	Editor	Changes Made
[Rev number]	[Rev Date]	[Modified By]	[Summary of Changes]

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