Energy Interoperation Glossary

Type	Description
Energy Service Engine (ESE)	The Energy Services Engine is a computation engine wherein a node makes decisions to buy or sell energy or energy services, and to respond to grid originating events. The ESE may operate the node directly. The ESE may reside on traditional building system middleware platforms or interact with commercial building systems directly. The ESE may use OPC to negotiate with industrial systems. How it marshals its effects is out of scope. The ESE interacts with other nodes by means of an ESI. An ESE is identified by an Actor ID
Energy Services Interface (ESI)	A node interacts with other nodes, including market making nodes through an ESI. While there may be other ESIs, in this specification, an ESE exposes the services defined in this specification through an ESI.
Measurement Service	A Measurement Service may be provided by a physical meter, a collection of meters, or a number of measuring points. A Measurement Service that provide a measurement of energy delivery that is agreeable to both parties in an interaction.
Registration	Registration is the process by which an ESE, identified by an Actor ID, acquires a Party ID. An ESE may request a re-assignment, as one ESE assumes the activities previously managed by another ESE. Different Registrars MAY require different information, potentially out of band information, before completing registration. All such requirements are out of scope.
Registrar	A Registrar assigns a Party ID to an Actor during Registration.
Registration Authority	Registration Authority is another name for Registrar. The Registration Aauthority may be independent or operated by other Parties.
Party	A Party is a business entity identified by a Party ID that has completed registration. Generally, a Party represents a single ESE. A Party may associated with an existing Account during Registration. Parties enter into engagement agreements through Enrollment
Enrollment	Enrollment is the process of establishing an engagement agreement between a Party and a counter-Party or Market. While much of Energy Interoperation focuses on the enrollment of Resources, Enrollment includes any of the Actor Roles as defined by **[NAESB]**.

Type	Description
Resource	A Party may enroll Resources through entering into engagement agreements. A Party may enroll also own zero Resources, such as a typical purchasing customer or a Party or trading in the wholesale forward markets (however a purchasing customer would have a premise address and measurement point.) A customer may also enroll as a Participant in DR Programs each with a DR Operators. For each DR Program, a customer may register a DR Resource. A DR Operator may aggregate DR Resources of its Participants and present a DR Resource to an ISO. The EMIX Resource.xsd model describes a range of potential operational responses for any resource. The model allows parties to describe a wide range of operations, both generation and curtailment. [EMIX Section 13]. Resources may represent a generator or a load response or aggregations. In interactions involving Resources it may be useful to describe either (1) the proposed or actual operation of a Resource, or (2) the range of capability of a Resource. EMIX Resource Descriptions are an extension of the EMIX Product Description. A Product is a description of place, commodity and schedule (intervals) in the context of a tender or transaction. A Resource must have an associated measurement point. For a physical generator or facility providing DR, this may be the utility meter. It could also be an aggregation of meter data for an aggregated Resource. Or it could be a sub-meter value or estimated measurement value (no real sensor) for some real or virtual generator within a facility.
Side	Side taken by a Party in a transaction (buy side or sell side).
Participant	A Party enrolled as in a Participant in an ISO Markets, an Independent Exchange or a DR Program.
OADR client	In EI there is no client in the OpenADR sense. A DR Resource has a URL; as do the DR Operators for each Program it is enrolled with. The two Parties communicate using services such as EiRegister/EiEnroll, EiAvail and EiOpt, EiFeedback and EiStatus. EiEvent notifications are to be optionally delivered to multiple URLs and optionally to pay attention to responses from each, but have a single VEN for a particular Resource that handles the services other than EiEvent responses. Alternatively, a Party owning a DR Resource could act as an Operator of DR Resources under his management and present an Aggregated DR Resource to his respective DR Operator.
VTN	A VTN is a Party acting in the role of a Resource Manager or Operator (including an ISO) for one or more Resources, Generation or DR.

Type	Description
VEN	A VEN is a Resource, Generation or DR owned by a Party. The Party responsible for a VEN may in tern be a VTN to other Resources or VTNs.