

## Data Definitions for ISO Public Bid Data

### Supplemental Energy Bids

Field	Short Definition	Long Definition
SC_ID	Scheduling Coordinator (SC) Pseudo identification number	The SC_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the SC who is submitting the bid for the resource (denoted by the RES_ID field).
OPR_DT	Operating date	
OPR_HR	Operating hour	Hour-ending [for instance, a value of 2 represents time from 01:00 to 02:00]
RES_ID	Pseudo Resource ID	The RES_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the resource in order to hide the identity of the particular resource and the SC who is submitting the bid for the resource.
RES_TYPE	Resource Type (G=generator, LB=Load Bus, DZ=demand zone, LG=load group, TI=Tie Point)	
IE_TYPE	If RES_TYPE = "TI", the IE_TYPE field gives the direction of power flow.	Where, I=Import (power flowing into the grid), E=Export (power flowing out of the grid).
MW1	Energy bid (If resource type is a generator or tie-point, positive value = incremental energy bid, negative value = decremental energy bid. If resource type is a load, positive value = incremental load, negative value = decremental load)	There are 10 bid segments and 11 associated bid points. Each bid point has a generation (MW) and price (PR) value, which are paired together as MW and price coordinates. Bid points are monotonically increasing in price with increasing generation (or decreasing load). Thus, the 10 <sup>th</sup> bid segment is the SC's most expensive energy segment while the 1 <sup>st</sup> bid segment is the SC's least expensive energy segment. MW1 represents the start of the first bid segment while MW11 represents the end of the 10 <sup>th</sup> bid segment.
MW2	Energy for bid segment 2	
MW3	Energy for bid segment 3	
MW4	Energy for bid segment 4	
MW5	Energy for bid segment 5	
MW6	Energy for bid segment 6	
MW7	Energy for bid segment 7	
MW8	Energy for bid segment 8	
MW9	Energy for bid segment 9	
MW10	Energy for bid segment 10	
MW11	Energy for bid segment 11	
PR1	Price for bid segment 1	Please refer to MW1 description.
PR2	Price for bid segment 2	
PR3	Price for bid segment 3	
PR4	Price for bid segment 4	
PR5	Price for bid segment 5	
PR6	Price for bid segment 6	

PR7	Price for bid segment 7	
PR8	Price for bid segment 8	
PR9	Price for bid segment 9	
PR10	Price for bid segment 10	
PR11	Price for bid segment 11	

## Ancillary Service Reserve Capacity Bids

Field	Short Definition	Long Definition
SC_ID	Scheduling Coordinator Pseudo identification number	The SC_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the SC who is submitting the bid for the resource (denoted by the RES_ID field).
OPR_DT	Operating date	
OPR_HR	Operating hour	
RES_ID	Pseudo Resource ID	The RES_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the resource in order to hide the identity of the particular resource and the SC who is submitting the bid for the resource.
MKT_TYPE	Market Type (D=Day-ahead, H=Hour-ahead)	
SCH_CLASS	Schedule Class (P= preferred, R= revised preferred)	When MKT_TYPE = D, the SCH_CLASS field identifies the Day-ahead market cycle (either preferred or revised preferred) in which the bid was submitted; the SCH_CLASS field is not defined for MKT_TYPE = H
RES_TYPE	Resource Type (G=generator, LB=Load Bus, DZ=demand zone, LG=load group, TI=Tie Point )	TI denotes a grid intertie resource for which the bid energy is being imported/ exported into/ from the ISO-controlled area of the power grid.
IE_TYPE	If RES_TYPE = "TI", the IE_TYPE field gives the direction of power flow.	Where, I=Import (power flowing into the grid), E=Export (power flowing out of the grid).
AS_TYPE	Ancillary service type (SP=spinning reserve, NS = Non-spinning reserve, RP= replacement reserve	
MW1	Energy bid (\$/MWh), (If resource type is a generator or tie-point, positive value = incremental energy bid, negative value = decremental energy bid. If resource type is a load, positive value = incremental load, negative value = decremental load)	There are 10 bid segments and 11 associated bid points. Each bid point has a generation (MW) and price (PR) value, which are paired together as MW and price coordinates. Bid points are monotonically increasing in price with increasing generation (or decreasing load). Thus, the 10 <sup>th</sup> bid segment is the SC's most expensive energy segment while the 1 <sup>st</sup> bid segment is the SC's least expensive energy segment. MW1 represents the start of the first bid segment while MW11 represents the end of the 10 <sup>th</sup> bid segment.
MW2		
MW3		
MW4		
MW5		
MW6		
MW7		
MW8		

MW9		
MW10		
MW11		
PR1	Energy price bid (\$/MWh) associated with MW1	Please refer to MW1 description.
PR2		
PR3		
PR4		
PR5		
PR6		
PR7		
PR8		
PR9		
PR10		
PR11		
BID_MW	Capacity bid quantity (MW)	For hour-ahead bids, this value is calculated as the maximum ((hour-ahead bid value - day-ahead award),0), in other words the additional capacity bid in the hour-ahead market
CAP_RES_PRC	Capacity bid price (\$/MW)	

## Regulation Capacity Bids

<b>Field</b>	<b>Short Definition</b>	<b>Long Definition</b>
SC_ID	Scheduling Coordinator Pseudo identification number	The SC_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the SC who is submitting the bid for the resource (denoted by the RES_ID field).
OPR_DT	Operating date	
OPR_HR	Operating hour	
RES_ID	Pseudo Resource ID	The RES_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the resource in order to hide the identity of the particular resource and the SC who is submitting the bid for the resource.
MKT_TYPE	Market Type (D=Day-ahead, H=Hour-ahead)	
SCH_CLASS	Schedule Class (P= preferred, R= revised preferred)	When MKT_TYPE = D, the SCH_CLASS field identifies the Day-ahead market cycle (either preferred or revised preferred) in which the bid was submitted; the SCH_CLASS field is not defined for MKT_TYPE = H
RES_TYPE	Resource Type (G = generator)	
MIN_REG_RNG	Capacity bid for downward regulation (MW)	
MAX_REG_RNG	Capacity bid for upward regulation (MW)	
CAP_RES_PRC_UP	Capacity bid price for upward regulation (\$/MW)	
CAP_RES_PRC_DN	Capacity bid price for downward regulation (\$/MW)	

## Adjustment Bid Data

<b>Field</b>	<b>Short Definition</b>	<b>Long Definition</b>
SC_ID	Scheduling Coordinator Pseudo identification number	The SC_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the SC who is submitting the bid for the resource (denoted by the RES_ID field).
OPR_DT	Operating date	
OPR_HR	Operating hour	
RES_ID	Pseudo Resource ID	The RES_ID field contains a numeric code that has been confidentially and anonymously assigned to represent the resource in order to hide the identity of the particular resource and the SC who is submitting the bid for the resource.
MKT_TYPE	Market Type (D=Day-ahead, H=Hour-ahead)	
SCH_CLASS	Schedule Class (P= preferred, R= revised preferred)	When MKT_TYPE = D, the SCH_CLASS field identifies the Day-ahead market cycle (either preferred or revised preferred) in which the bid was submitted; the SCH_CLASS field is not defined for MKT_TYPE = H
RES_TYPE	Resource Type (G=generator, LB=Load Bus, DZ=demand zone, LG=load group, TI=Tie Point )	
IE_TYPE	If RES_TYPE = "TP", the IE_TYPE field gives the direction of power flow.	Where, I=Import (power flowing into the grid), E=Export (power flowing out of the grid).
INC_MW1	Adjustment bid quantity (MWh) (positive value = incremental change to schedule, negative value = decremental change to schedule)	There are 10 bid segments. Each bid segment has an energy (INC_MW) and price (INC_PR) value which are paired together as MW and price coordinates. Bid segments are monotonically increasing in price with increasing generation (or decreasing load). Thus, the 10 <sup>th</sup> bid segment is the SC's most expensive energy segment while the 1 <sup>st</sup> bid segment is the SC's least expensive energy segment. INC_MW1 represents the first bid segment while INC_MW10 represents the 10 <sup>th</sup> bid segment.
INC_MW2		
INC_MW3		
INC_MW4		
INC_MW5		
INC_MW6		
INC_MW7		
INC_MW8		
INC_MW9		
INC_MW10		

INC_PR1	Energy price bid associated with INC_MW1	
INC_PR2		
INC_PR3		
INC_PR4		
INC_PR5		
INC_PR6		
INC_PR7		
INC_PR8		
INC_PR9		
INC_PR10		