Building Energy Data Exchange Specification (BEDES) Compliant Mapping

Date   7/24/2018
Implementation   NYCEEC EfficienSEE 3.0 Database
Implementation Version   SWA 12-13-17 version
BEDES Version   V2.1

For more information about BEDES, please visit   https://bedes.lbl.gov/bedes-online

Field Name	Units	Description	BEDES Term	BEDES Mapping	BEDES Units	BEDES Notes	NYCEEC Answers
BBL			Premises Identifier	Identifier Label = "Premises" Identifier = [value]		Definition BBL = Building Block Lot BEDES does not concatenate parts of full address.	Building Block Lot #. This seems like it is unique to NYC.
Address			Address Line 1 + City + State + ZIP Code	Address Line 1 = [value] City = [value] State = [value] ZIP Code = [value]		Your application can use whatever internal Field Name and value(s) you want. This mapping simply indicates that to transform your data to BEDES Terms, it would need to be parsed.	Okay, got it. Anything else to make this BEDES compliant?
BldgArea			Building Gross Floor Area	Premises Level = "Building" Floor Area Qualifier = "Gross" Opaque Surface = "Floor" Area = [value]	ft2		
NumBldgs			Building Quantity	Spatial Unit Type = "Building" Quantity = [value]			
NumFloors			Floor Quantity	Spatial Unit Type = "Floor" Quantity = [value]			
UnitsRes			Residential Unit Quantity	Occupancy Classification = "Residential" Spatial Unit Type = "Unit" Quantity = [value]			
YearBuilt			Completed Construction Status Date	Construction Status = "Completed" Construction Status Date = [value] Date Format = "Year"	Year		
ENERGY STAR Score			ENERGY STAR Assessment Value	Assessment Program = "ENERGY STAR" Assessment Value = [value]			
Weather Normalized Source EUI (kBtu/ft²)			Annual Weather Normalized Source Energy Resource Intensity	Interval Frequency = "Annual" Normalization = "Weather normalized" Resource Boundary = "Source" Resource = "Energy" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2		
National Median Source EUI (kBtu/ft²)			Annual National Median Source Energy Resource Intensity	Interval Frequency = "Annual" Normalization = "National median" Resource Boundary = "Source" Resource = "Energy" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2		
% Difference from National Median Source EUI			Annual National Median Percent Improvement	Interval Frequency = "Annual" Normalization = "National median" Percent Improvement = [value]	Percent		
Fuel Oil #1 Use (kBtu)			Annual Fuel Oil No 1 Resource Value	Interval Frequency = "Annual" Resource = "Fuel oil no 1" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Fuel Oil #2 Use (kBtu)			Annual Fuel Oil No 2 Resource Value	Interval Frequency = "Annual" Resource = "Fuel oil no 2" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Fuel Oil #4 Use (kBtu)			Annual Fuel Oil No 4 Resource Value	Interval Frequency = "Annual" Resource = "Fuel oil no 4" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Fuel Oil #5 & 6 Use (kBtu)			Annual Fuel Oil No 5 And No 6 Resource Value	Interval Frequency = "Annual" Resource = "Fuel oil no 5 and no 6" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Diesel #2 Use (kBtu)			Annual Diesel Resource Value	Interval Frequency = "Annual" Resource = "Diesel" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu	BEDES does not differentiate Diesel fuel #2, but can either add this or use a temporary custom value if needed.	Annual. This is a different type of fuel from fuel oil#2 , why not differentiate? Can you specify what you mean by "#2", since I assume that "#2" is fuel oil 2.
Kerosene Use (kBtu)			Annual Kerosene Resource Value	Interval Frequency = "Annual" Resource = "Kerosene" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Propane Use (kBtu)			Annual Propane Resource Value	Interval Frequency = "Annual" Resource = "Propane" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
District Steam Use (kBtu)			Annual District Steam Resource Value	Interval Frequency = "Annual" Resource = "District steam" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
District Hot Water Use (kBtu)			Annual District Hot Water Resource Value	Interval Frequency = "Annual" Resource = "District hot water" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
District Chilled Water Use (kBtu)			Annual District Chilled Water Resource Value	Interval Frequency = "Annual" Resource = "District chilled water" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Natural Gas Use (kBtu)			Annual Natural Gas Resource Value	Interval Frequency = "Annual" Resource = "Natural gas" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu		
Greatest Used Fuel Type			Primary Resource	Priority = "Primary" Resource = [value]			

Source Term	Mapped Term	Attributes	Unit	Notes
Electricity Use - Grid Purchase and Generated from Onsite Renewable Systems (kBtu)	Annual Delivered And Gross Onsite Renewable Electricity Resou	Interval Frequency = "Annual" Resource Generation = "Delivered" Resource Boundary = "Gross" Resource Boundary = "Onsite" Resource Generation = "Renewable" Resource = "Electricity" Resource Value = [value] Unit of Measure = "kBtu"	kBtu	
CLEAN BBLs	Clean Building Block Lot Identifier	Custom Identifier Label = "Clean Building Block Lot" Identifier = [value]		
TWG Building Typology				Range of concatenated varying elements such as: "Occupancy Classification", "Completed Construction Status Date", "Floor Quantity", "Heating Resource", etc. Need separation for BEDES mapping. / Okay, we don't need to map this term, this can be broken out. Can you provide possible breakouts? Did not find them.
Flag To Throw Building Out of Analysis ONLY display flags, no data	NO MAPPING			
Water Data Issue Summary Flag (missing, too high, or too low)	NO MAPPING			
Is a NYCHA Property?	NO MAPPING			
Vintage	NO MAPPING			
Fuel Usage kBtu/SF	Annual Site Energy Resource Intensity	Interval Frequency = "Annual" Resource Boundary = "Site" Resource = "Energy" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2	
Electric Usage kBtu/SF	Annual Site Electricity Resource Intensity	Interval Frequency = "Annual" Resource Boundary = "Site" Resource = "Electricity" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2	
Total Estimated 2016 LL84 Energy Spend ($/year)	Annual Estimated Energy Resource Cost	Interval Frequency = "Annual" Derivation Method = "Estimated" Resource = "Energy" Resource Cost = [value]	$	
Total Estimated 2016 LL84 FUEL Usage (kBtu/SF/year)	Annual Estimated NonElectric Fuel Resource Intensity	Interval Frequency = "Annual" Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2	This is meant to be generic for NOT electricity
Total Estimated 2016 LL84 FUEL Usage (kBtu/year)	Annual Estimated NonElectric Fuel Resource Value	Interval Frequency = "Annual" Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu	This is meant to be generic for NOT electricity
Total Estimated 2016 LL84 Electricity Usage (kBtu/SF/year)	Annual Estimated Electricity Resource Intensity	Interval Frequency = "Annual" Derivation Method = "Estimated" Resource = "Electricity" Resource Intensity = [value] Unit Of Measure = "kBtu/ft2"	kBtu/ft2	
Total Estimated 2016 LL84 Electricity Usage (kBtu/year)	Annual Estimated Electricity Resource Value	Interval Frequency = "Annual" Derivation Method = "Estimated" Resource = "Electricity" Resource Value = [value] Unit Of Measure = "kBtu"	kBtu	
Total Estimated 2016 LL84 GHG Emissions (Mton/year)	Annual Estimated GHG Emissions Value	Interval Frequency = "Annual" Derivation Method = "Estimated" Emission Gas Type = "GHG" Emissions Value = [value] Unit Of Measure = "MtCO2e"	MtCO2e	
10th %tile value in TWG Fuel Comp Group	10th TWG Fuel Comp Group Benchmark Percentile	Benchmark Peer Group = "10th TWG Fuel Comp Group" Benchmark Percentile = [value]	Percent	
20th %tile value in TWG Fuel Comp Group	20th TWG Fuel Comp Group Benchmark Percentile	Benchmark Peer Group = "20th TWG Fuel Comp Group" Benchmark Percentile = [value]	Percent	
Fuel ESP $ per BBL	Estimated NonElectric Fuel Cost Savings	Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Cost Savings = [value]	$	ESP = Estimated Savings Potential / ESP means the values are "savings" (e.g., cost savings) / Energy Savings Potential
Fuel ESP % of total energy cost ($)	Estimated NonElectric Fuel Total Cost Percent Improvement	Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Interval Measure = "Total" Cost Attribution = "Cost" Percent Improvement = [value]	%	Confused by ($) at the end of this field name, which implies unit of measurement is dollars rather than percent.
Fuel ESP (site kBtu per BBL)	Estimated NonElectric Fuel Resource Savings	Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Resource Savings = [value] Unit Of Measure = "kBtu"	kBtu	Is Site intended to differentiate from Source, or does it just mean total for this location? Are there more than one BBL per site?
Fuel ESP % of total site kBtu	Estimated NonElectric Fuel Total Percent Improvement	Derivation Method = "Estimated" Custom Resource = "NonElectric Fuel" Interval Measure = "Total" Percent Improvement = [value] Unit Of Measure = "kBtu"	kBtu	Are these all "Annual" values?

Label	Field Name	Specification	Unit	Note	Category
FESP MT CO2 based on primary fuel type	Estimated Primary NonElectric Fuel CO2e Emissions Value	Derivation Method = "Estimated" Priority = "Primary" Custom Resource = "NonElectric Fuel" Emission Gas Type = "CO2e" Emissions Value = [value] Unit Of Measure = "Mass ton"	Mass ton	Is this intended to be Emissions Value, or Emisisons Savings? duplicate with rows above. Original spreadsheet shows 10th and 20th percentile differentiation.	
Fuel ESP $ per BBL					
Fuel ESP % of total energy cost ($)					
Fuel ESP (site kBtu per BBL)					
Fuel ESP % of total site kBtu					
FESP MT CO2 based on primary fuel type					
10th %tile value in TWG Electric Comp Group	10th TWG Electric Comp Group Benchmark Percentile	Benchmark Peer Group = "10th TWG Electric Comp Group" Benchmark Percentile = [value]	Percent		
20th %tile value in TWG Electric Comp Group	20th TWG Electric Comp Group Benchmark Percentile	Benchmark Peer Group = "20th TWG Electric Comp Group" Benchmark Percentile = [value]	Percent		
EESP $/BBL	Estimated Electricity Cost Savings	Derivation Method = "Estimated" Resource = "Electricity" Cost Savings = [value]	$		Electric Energy Savings Potential
EESP % of total energy cost ($)	Estimated Electricity Total Cost Percent Improvement	Derivation Method = "Estimated" Resource = "Electricity" Interval Measure = "Total" Cost Attribution = "Cost" Percent Improvement = [value]	%		Electric Energy Savings Potential
EESP (site kBtu/BBL)	Estimated Electricity Resource Savings	Derivation Method = "Estimated" Resource = "Electricity" Resource Savings = [value] Unit Of Measure = "kBtu"	kBtu		Electric Energy Savings Potential
Electric ESP % of total site kBtu	Estimated ElectricityTotal Percent Improvement	Derivation Method = "Estimated" Resource = "Electricity" Interval Measure = "Total" Percent Improvement = [value] Unit Of Measure = "kBtu"	kBtu		Electric Energy Savings Potential
EESP MT CO2e/year	Estimated Electricity CO2e Emissions Value	Derivation Method = "Estimated" Resource = "Electricity" Emission Gas Type = "CO2e" Emissions Value = [value] Unit Of Measure = "Mass ton"	Mass ton	Is this intended to be Emissions Value, or Emisisons Savings? duplicate with rows above. Original spreadsheet shows 10th and 20th percentile differentiation.	Electric Energy Savings Potential
EESP $/BBL					Electric Energy Savings Potential
EESP % of total energy cost ($)					Electric Energy Savings Potential
EESP (site kBtu/BBL)					Electric Energy Savings Potential
Electric ESP % of total site kBtu					Electric Energy Savings Potential
EESP MT CO2e/year					Electric Energy Savings Potential
Total ESP $/BBL	Estimated Total Energy Cost Savings	Derivation Method = "Estimated" Interval Measure = "Total" Resource = "Energy" Cost Savings = [value]	$		Energy Savings Potential
Total ESP percentage savings from $/BBL	Estimated Total Energy Cost Percent Improvement	Derivation Method = "Estimated" Interval Measure = "Total" Resource = "Energy" Cost Attribution = "Cost" Percent Improvement = [value]	%		Energy Savings Potential
Total ESP site kBtu/BBL	Estimated Total Energy Resource Savings	Derivation Method = "Estimated" Interval Measure = "Total" Resource = "Energy" Resource Savings = [value] Unit Of Measure = "kBtu"	kBtu		Energy Savings Potential
Total ESP percentage savings from kBtu/BBL	Estimated Total Energy Percent Improvement	Derivation Method = "Estimated" Interval Measure = "Total" Resource = "Energy" Percent Improvement = [value]	%		Energy Savings Potential
Total ESP MT CO2e/BBL	Estimated Total CO2e Emissions Value	Derivation Method = "Estimated" Interval Measure = "Total" Emission Gas Type = "CO2e" Emissions Value = [value] Unit Of Measure = "Mass ton"	Mass ton	Is this intended to be Emissions Value, or Emisisons Savings?	Energy Savings Potential
Total ESP percentage savings from CO2e/BBL	Estimated Total CO2e Percent Improvement	Derivation Method = "Estimated" Interval Measure = "Total" Emission Gas Type = "CO2e" Percent Improvement = [value]	%		Energy Savings Potential
Total ESP $/BBL				duplicate with rows above. Original spreadsheet shows 10th and 20th percentile differentiation.	Energy Savings Potential
Total ESP percentage savings from $/BBL					Energy Savings Potential
Total ESP site kBtu/BBL					Energy Savings Potential
Total ESP percentage savings from kBtu/BBL					Energy Savings Potential
Total ESP MT CO2e/BBL					Energy Savings Potential
Total ESP percentage savings from CO2e/BBL					Energy Savings Potential
CHP Candidate? Y=1, N=0					

Label	Estimated Savings Name	Attributes	Unit	Comments
Electricity Savings Estimate kWh/year/BBL	Estimated Annual Electricity Resource Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Electricity" Resource Savings = [value] Unit Of Measure = "kWh"	kWh	Is ths savings from CHP? It is not labeled as such.
fuel use savings Therms/year/BBL (negative = increase in gas usage)	Estimated Annual Natural Gas Resource Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Natural gas" Resource Savings = [value] Unit Of Measure = "Therm"	Therm	
CHP Potential Savings $/BBL	Estimated Annual Cogeneration Cost Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Energy Generation Technology = "Cogeneration" Cost Savings = [value]	$	
CHP site savings potential kBtu/BBL	Estimated Annual Cogeneration Site Energy Resource Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Energy Generation Technology = "Cogeneration" Resource Boundary = "Site" Resource = "Energy" Resource Savings = [value] Unit Of Measure = "kBtu"	kBtu	
CHP source savings potential kBtu/BBL	Estimated Annual Cogeneration Source Energy Resource Saving	Derivation Method = "Estimated" Interval Frequency = "Annual" Energy Generation Technology = "Cogeneration" Resource Boundary = "Source" Resource = "Energy" Resource Savings = [value] Unit Of Measure = "kBtu"	kBtu	
CHP Potential savings MT CO2e/BBL	Estimated Annual Cogeneration CO2e Emissions Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Energy Generation Technology = "Cogeneration" Emission Gas Type = "CO2e" Emissions Savings = [value] Unit Of Measure = "Mass ton"	Mass ton	
CHP Candidate? Y=1, N=0				duplicate with rows above. Original spreadsheet shows Master Meter vs Direct Meter differentiation.
Electricity Savings Estimate kWh/year/BBL				
fuel use savings Therms/year/BBL (negative = increase in gas usage)				
CHP Potential savings $/BBL				
CHP site savings potential kBtu/BBL				
CHP source savings potential kBtu/BBL				
CHP Potential savings MT CO2e/BBL				
After ESP Oil Savings Potential #4 to #2 ($ per year)	Estimated Annual Fuel oil no 4 Fuel oil no 2 Cost Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 4" Resource = "Fuel oil no 2" Cost Savings = [value]	$	What is the word "After" intended to mean?
After ESP Oil Savings Potential #4 to #2 (MT CO2 per year)	Estimated Annual Fuel oil no 4 Fuel oil no 2 Emissions Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 4" Resource = "Fuel oil no 2" Emissions Savings = [value] Unit Of Measure = "Mass ton"	Mass ton	
After ESP Oil Savings Potential #4 to gas ($ per year)	Estimated Annual Fuel oil no 4 Natural Gas Cost Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 4" Resource = "Natural gas" Cost Savings = [value]	$	
After ESP Oil Savings Potential #4 to gas (MT CO2 per year)	Estimated Annual Fuel oil no 4 Natural Gas Emissions Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 4" Resource = "Natural gas" Emissions Savings = [value] Unit Of Measure = "Mass ton"	Mass ton	
After ESP Oil Savings Potential #2 to gas ($ per year)	Estimated Annual Fuel oil no 2 Natural Gas Cost Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 2" Resource = "Natural gas" Cost Savings = [value]	$	
After ESP Oil Savings Potential #2 to gas (MT CO2 per year)	Estimated Annual Fuel oil no 2 Natural Gas Emissions Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Fuel oil no 2" Resource = "Natural gas" Emissions Savings = [value] Unit Of Measure = "Mass ton"	Mass ton	
After ESP Oil Savings Potential #4 to #2 ($ per year)				duplicate with rows above. Original spreadsheet shows 10th and 20th percentile differentiation.
After ESP Oil Savings Potential #4 to #2 (MT CO2 per year)				
After ESP Oil Savings Potential #4 to gas ($ per year)				

After ESP Oil Savings Potential #4 to gas (MT CO2 per year)				
After ESP Oil Savings Potential #2 to gas ($ per year)				
After ESP Oil Savings Potential #2 to gas (MT CO2 per year)				
Total Water Usage gallons per SF	Total Water Resource Value	Interval Measure = "Total" Resource = "Water" Resource Value = [value] Unit Of Measure = "gallons"	gallons	Annual? Is this 10th percentile or some other baseline?
Percentile Water Use in TWG Comp Group				
20th %tile value in TWG Water Comp Group (gal/SF)	20th TWG Water Comp Group Benchmark Percentile	Benchmark Peer Group = "20th TWG Water Comp Group" Benchmark Percentile = [value]	Percent	
Water Savings Potential ($/year)	Estimated Annual Water Cost Savings	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Water" Cost Savings = [value]	$	
2015 LL84 Water Cost Estimate ($/year)	Estimated Annual Water Resource Cost	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Water" Resource Cost = [value]	$	
Water Savings Potential to get to 20th percentile (kgal/year)	NO MAPPING			
Water Savings Potential % of baseline	Estimated Annual Water Percent Improvement	Derivation Method = "Estimated" Interval Frequency = "Annual" Resource = "Water" Percent Improvement = [value]	%	Percent Improvement or Percent of Baseline?
#8 WN Source EUI Not Available - Comm bldgs only, MF has other checks in place	NO MAPPING			
#12 District Chilled Water Use	District Chilled Water Resource Value	Resource = "District chilled water" Resource Value = [value]		Annual? Unit of Measure?