

[1] Location Code (from REXUS)

[2] (8-digit alphanumeric string)

[3] 4 digit numeric string

[4] PG Code for LEC projects: PG24

[5] Unique identifier for project teams to use during data entry process, if necessary. Example, ECM number in TO Schedule

[6] Top 20% of Contract Limits by Material Subcategory

[7] Brief description of what material was used for on the project, supplier, mix type etc.

[8] For glass, upstream cement plant, and steel from integrated mills, ask manufacturer to generate and report their ENERGY STAR Energy Performance Score per: <http://www.energystar.gov/epis>

Any cement, glass, or integrated steel plant based in the U.S. can use the free ENERGY STAR Energy Performance Indicator tool to generate a score, even if the plant is not ENERGY STAR certified.

[9] Certify that the quantity is accurate, and reported product-specific GWP matches the identified EPD

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
Enter Email Address	Text	Manual entry		The email address associated with the user entering project data.		Must be valid email address I.e. example@gsa.gov
Milestone Status	Text	Dropdown		Represents key achievements throughout the project's design and implementation and its advancement through key stages such as Preliminary Assessment, 50% Design, 100% Design, and more. 7 submittals are anticipated for non-ESPC projects. 6 submittals are expected for ESPC projects.	<p>Non-ESPC submittals: Submittal 7 - Final Performance Submittal - Milestone 4.691 - Substantial Completion Submittal 6 - Hand-off/Turnover - Milestone 4.691 - Substantial Completion Submittal 5 - 90% CD - Milestone 4.361 - Design Complete Submittal 4 - 65% DD Review/ 50% CD - Milestone 4.251 - Design Start / NTP Submittal 3 - 35% DD - Milestone 4.251 - Design Start / NTP Submittal 2 - Commissioner's Concept Design Approval - Milestone 4.271 - Commissioner's Concept Design Approval Submittal 1 - Project Agreement - Milestone 3.091 - Initial Financial Agreement w Customer</p> <p>ESPC submittals: Submittal 6 - Final Performance Submittal - Milestone 10.211 - Full Project Acceptance Issued Submittal 5 - Hand-off/Turnover - Milestone 10.181 - All ECMs 30 Day Proof of Performance Complete Submittal 4 - 90% CD - Milestone 10.101 - Investment Grade Audit (IGA) Complete Submittal 3 - 65% DD Review/ 50% CD - Milestone 10.101 - Investment Grade Audit (IGA) Complete Submittal 2 - 35% DD - Milestone 10.041 - Notice of Intent to Award (NOITA) Issued Submittal 1 - Project Agreement - Milestone 10.061 - Preliminary Assessment (PA) Start</p> <p>Other milestones aligning with Kahua are also present, but submittals are only required during the milestones identified above. Deferred - if pursuit of work item is deferred/paused Cancelled - if work item is no longer being considered AoA Submittal - if work item is under consideration with an analysis of alternatives</p>	
Building Number (from REXUS):	Alphanumeric (select from dropdown)	Dropdown		A code representing the building location as reported in the REXUS system. Serves as an identifier.		
Building name	Text	Auto generated		The name of the building associated with the project.		
Project # (Kahua)	Numeric	Dropdown		Project number assigned in the Kahua system. Serves as an identifier.		
Accounting String ID (ASID) (8-digit alphanumeric string)	Alphanumeric	Dropdown	8	IRIS generated coding the represents the funding type for work items within a project. Serves as an identifier.		Must enter an 8 digit alphanumeric string as repted in IRIS.
Work Item (WI) # (4 digit numeric string)	Numeric	Dropdown	4	Code generated in IRIS representing a specific work item. Serves as an identifier.		Must enter a 4-digit number without any spaces or special characters.
Budget Activity Code	Alphanumeric	Dropdown		Funding stream associated with the work item.	PG24 - Low-Carbon Materials	
LEC Identifier	Alphanumeric	Manual entry		Optional: This field was provided to help contractors add any extra identifiers that are useful to the for the project.		
LEC Material Category	Text	Dropdown		Low Embodied Carbon (LEC) Material category classification, falls under 4 primary categories.	Concrete (and cement or CMUs) Asphalt Steel Glass	

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
LEC Material Subcategory	Text	Dropdown		Low Embodied Carbon (LEC) Material Sub category classification. Provides detail to the material category selected.	≤2499 3000 4000 5000 6000 ≥7200 HESC≤2499 HESC3000 HESC4000 HESC5000 HESC6000 HESC≥7200 Cement Concrete Masonry Units Asphalt Rebar (fabricated) Rebar (unfabricated) Hollow Structural Sections (fabricated) Hollow Structural Sections from Electric Arc Furnaces (unfabricated) Hot-Rolled Sections (fabricated) Hot-Rolled Sections (unfabricated) Cold-Formed and Galvanized (stud, track, framing, etc.) Structural Steel Plate from Electric Arc Furnaces (unfabricated) Flat Glass	
Declared Unit	Text	Auto generated		Quantity of measure for the material as listed in the EPD.		
GWP Limit Specified in the Contract	Numeric	Auto generated		The Global Warming Potential (GWP) limit specified in the contract. The value that auto populates represents the top 20% of contract limits by material and subcategory and serves as a default value		
New GWP Limit Specified in the Contract if Different than GWP Limit Listed in Previous Column	Numeric	Manual entry		Enter a new Global Warming Potential (GWP) limit if the value listed in the contract differs from the previous column.		Input must be a numerical value.
Reported Threshold Target	Text	Dropdown		Predicted Better Than Average, 40%, or 20% threshold at start of the project.	20% 40% Better Than Average	
Calculated Threshold Acheived	Text	Auto generated		Reports Better Than Average, 40%, or 20% threshold actually achieved by project based on product-specific GWP entered.		
Provide link for Material EPD	Text	Manual entry		Link to the Environmental Product Declaration (EPD) for the material.		Input must be a valid URL, i.e., 'https://example.com'
Description Material Installed	Text	Manual entry		Brief description of how the material was utilized in the project.		Valid description of the material used for the project must be entered.
Quantity	Numeric	Manual entry		Actual quantity of materials purchased under this work item. Please ensure the units match the quantity reporting units prepopulated in the following column.		Input must be a numerical value.
Quantity Reporting Unit	Text	Auto generated		Reporting units of materials purchased. This is a default value based on the material selected.		
Product Category Rule (PCR)	Text	Manual entry		A PCR is a copyrighted document that is part of the EPD and is specific to the material product category. The PCR provides the instructions for how the life-cycle assessment (LCA) should be conducted.		Input should describe product category rule.
Product Specific GWP	Numeric	Manual entry		Actual global warming potential for the specific product, as listed in the EPD. Please ensure that the GWP units (kgCO2e/declared unit) match the declared unit listed		Input must be a numerical value.
Embodied Carbon Reduction (Calculated) Upstream Scope 3	Numeric	Auto generated		This calculates the embodied carbon avoided by utilizing the LEC material selected instead of a "better than average" non-LEC substitute.		

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
Upstream Plant's ENERGY STAR Energy Performance Score	Numeric	Manual entry		ENERGY STAR Energy Performance Score of the plant. There is no minimum score requirement. For glass, upstream cement plant, and steel from integrated mills, ask manufacturer to generate and report their ENERGY STAR Energy Performance Score per: http://www.energystar.gov/epis Any cement, glass, or integrated steel plant based in the U.S. can use the free ENERGY STAR Energy Performance Indicator tool to generate a score, even if the plant is not ENERGY STAR certified		Input must be numerical value.
Year of plant's ENERGY STAR Energy Performance Score	Numeric	Manual entry		Year in which the energy star score for the upstream plant was calculated.		Must be a valid date in the form YYYY.
Certify information for this row is accurate (CxP/CMa Team Only)	Check box	Manual entry		Confirmation that the information listed reflects the material as installed. This should be left blank until project is completed		
Certify the embodied carbon calculations (CxP/CMa Team Only)	Check box	Manual entry		Confirmation that the quantity of material installed is accurate and GWP information matches the EPD. This should be left blank until project is completed		
Email of Certifier (CxP/CMa Team Only)	Text	Manual entry		Email of the person certifying this data post construction. This should be left blank until project is completed		Must be valid email address I.e. example@gsa.gov

[1] Location Code (from REXUS)

[2] 8-digit alphanumeric string

[3] 4 digit numeric string as reported in IRIS

[4] PG Code for HPGB Projects: PG21

PG Code for E&ST Projects: PG27

[5] Unique identifier for project teams to use during data entry process, if necessary. Example, ECM number in TO Schedule

[6] AoA Dropdown

[7] AoA Dropdown

[8] Auto populates based on ECM Category and Technology Selected

[9] Auto populates based on ECM Category and Technology Selected

[10] In years

[11] In years. If different than default. Max of 30 year design life

[12] ESPC estimated year one savings

e.g. If you install a new high efficiency chiller instead of spending \$10,000 to repair the old one, enter \$10,000 here.

[13] (Enter cost if O&M contracts will change due to ECM Implementation)

Enter negative value if there will be confirmed O&M savings

[14] Enter negative value if there will be an increase in energy use

[15] Enter negative value if there will be an increase in energy use

1 mmBtu = 974.66 scf

[16] Enter negative value if there will be an increase in energy use

1 mmBtu = 7.246376812 gal

[17] Enter negative value if there will be an increase in energy use

[18] Enter negative value if there will be an increase in energy use

[19] Enter negative value if there will be an increase in energy use

[20] Enter negative value if there will be an increase in energy use

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
Enter Email Address	Text	Manual entry		The email address associated with the user entering project data.		Must be valid email address I.e. example@gsa.gov
Milestone Status	Text	Dropdown		Represents key achievements throughout the project's design and implementation and its advancement through key stages such as Preliminary Assessment, 50% Design, 100% Design, and more. 7 submittals are anticipated for non-ESPC projects. 6 submittals are expected for ESPC projects.	<p>Non-ESPC submittals: Submittal 7 - Final Performance Submittal - Milestone 4.691 - Substantial Completion Submittal 6 - Hand-off/Turnover - Milestone 4.691 - Substantial Completion Submittal 5 - 90% CD - Milestone 4.361 - Design Complete Submittal 4 - 65% DD Review/ 50% CD - Milestone 4.251 - Design Start / NTP Submittal 3 - 35% DD - Milestone 4.251 - Design Start / NTP Submittal 2 - Commissioner's Concept Design Approval - Milestone 4.271 - Commissioner's Concept Design Approval Submittal 1 - Project Agreement - Milestone 3.091 - Initial Financial Agreement w Customer</p> <p>ESPC submittals: Submittal 6 - Final Performance Submittal - Milestone 10.211 - Full Project Acceptance Issued Submittal 5 - Hand-off/Turnover - Milestone 10.181 - All ECMS 30 Day Proof of Performance Complete Submittal 4 - 90% CD - Milestone 10.101 - Investment Grade Audit (IGA) Complete Submittal 3 - 65% DD Review/ 50% CD - Milestone 10.101 - Investment Grade Audit (IGA) Complete Submittal 2 - 35% DD - Milestone 10.041 - Notice of Intent to Award (NOITA) Issued Submittal 1 - Project Agreement - Milestone 10.061 - Preliminary Assessment (PA) Start</p> <p>Other milestones aligning with Kahua are also present, but submittals are only required during the milestones identified above. Deferred - if pursuit of work item is deferred/paused Cancelled - if work item is no longer being considered AoA Submittal - if work item is under consideration with an analysis of alternatives</p>	
Building Number (from REXUS):	Alphanumeric (select from dropdown)	Dropdown		A code representing the building location as reported in the REXUS system. Serves as an identifier.	List of owned, active, region-specific buildings in the GSA portfolio	
Building name	Text	Auto generated		The name of the building associated with the project.		
Project # (Kahua)	Numeric	Dropdown		Project number assigned in the Kahua system. Serves as an identifier.		
Accounting String ID (ASID)	Alphanumeric	Dropdown	8	IRIS generated coding that represents the funding type for work items within a project. Serves as an identifier.		Must enter an 8 digit alphanumeric string as reported in IRIS.
Work Item (WI) #	Numeric	Dropdown	4	Code generated in IRIS representing a specific work item. Serves as an identifier.		Must enter a 4-digit number without any spaces or special characters.
Budget Activity Code	Alphanumeric	Dropdown		Funding stream associated with the work item.	PG21 - High Performance Green Buildings PG27 - Emerging & Sustainable Technologies	
IRA Program (E&ST, HPGB)	Text	Auto generated		Indicates the IRA program based on PG code selected, whether E&ST (Emerging and Sustainable Technology) or HPGB (High-Performance Green Building).		
Select the guiding principle for the material or technology	Text	Dropdown		Specifies the guiding principle achieved based on the installation of the technology, if applicable.	Employ Integrated Design Principles Optimize Energy Performance Protect and Conserve Water Enhance the Indoor Environment Reduce the Environmental Impact of Materials Assess and Consider Building Resilience	
Deep Energy Retrofit	Checkbox	Checkbox		Indicates whether the work item contributes towards this sustainability outcome. Renovations are made to an existing building with the primary goal of significantly improving its energy efficiency. Marked by 40% building-level EUI reduction against a 2019 baseline.		
All Electric Building	Checkbox	Checkbox		Indicates whether the work item contributes towards this sustainability outcome. Structure that relies solely on electricity for its energy needs, including heating, cooling, and other systems traditionally powered by fossil fuels.		

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
Net Zero Energy	Checkbox	Checkbox		Indicates whether the work item contributes towards this sustainability outcome. A building balances its energy needs with energy produced from renewable, zero-emission sources. Consuming no more energy than is produced from renewable sources.		
Sustainable Building	Checkbox	Checkbox		Indicates whether the work item contributes towards this sustainability outcome. Signifies compliance with the Guiding Principles for Sustainable Federal Buildings. This means the work item contributes towards certifying a building as compliant within the Guiding Principles for Sustainable Federal Buildings (GPs). Both currently GP compliant and non-GP compliant (eligible) buildings can achieve this strategic outcome.		
Energy Conservation Measure / Water Conservation Measure (ECM/WCM) Identifier	Alphanumeric	Manual entry		Optional: This field was provided to help contractors add any extra identifiers that are useful to the for the project.		
ECM Category	Text	Dropdown		List of Energy and Water Conservation measure categories (ECMs/WCMs). This list aligns with the Department of Energy's (DOE) Compliance Tracking System (CTS)	Boiler Plant Improvements Chiller Plant Improvements Building Automation Systems/EMCS Heating, Ventilating, and Air Conditioning Lighting Improvements Building Envelope Modifications Chilled Water, Hot Water, and Steam Distribution Systems Electric Motors and Drives Refrigeration Distributed Generation Renewable Energy Systems Energy/Utility Distribution Systems Water and Sewer Conservation Systems Electrical Peak Shaving/Load Shifting Rate Adjustments Energy Related Process Improvements Advanced Metering Systems Appliance/Plug-load Reductions Service Hot Water (SHW) Systems Conveyance Systems Data Center Energy Conservation Improvements	
ECM Technology	Text	Dropdown		Dynamic list of Energy and Water Conservation measure technologies. The dropdown options are dynamic based on the ECM/WCM category selected in the prior column. This list aligns with the Department of Energy's (DOE) Compliance Tracking System (CTS)	The dropdown options are dynamic based on the ECM/WCM category selected in the prior column.	
Quantity Installed	Numeric	Manual entry		Quantity of energy/water conservation measure installed in the building. e.g. if 3 boilers with the same specifications were installed, list 3. Please ensure that the following columns related to cost and savings reflect that of ALL items installed on this line item, NOT cost/savings per item		Input must be a value greater than 0.
TO Schedule Technology	Text	Auto generated		Aligns energy/water conservation measure category and technology selected with the Task Order Schedule.		
Emerging & Sustainable Technology	Text	Auto generated		Aligns energy/water conservation measure category and technology with the Emerging & Sustainable Technology list		
ECM Default Design Life	Numeric	Auto generated		Default design life of the Energy Conservation Measure (ECM) in years.		
Alternative ECM Design Life	Numeric	Manual entry		If the product installed has a different anticipated lifespan than the default, enter it here		Input must be a whole number between 1 and 30.
Primary Building Cooling Fuel	Text	Dropdown		Indicates the primary fuel source for building cooling.	Electricity Chilled Water Steam N/A	
Primary Building Heating Fuel	Text	Dropdown		Indicates the primary fuel source for building heating.	Natural Gas Fuel Oil Steam Other N/A	

Field Name/ Column	Data Type	Input type	Field Length	Description	Dropdown Options	Data Validation (if applicable)
Refrigerant Involved in ECM?	Text	Dropdown		Specifies whether the ECM involves the use of refrigerant.	Yes No	
Refrigerant Type	Alphanumeric	Manual entry		Describes the type of refrigerant used in the ECM.		
Refrigerant Capacity (lbs)	Numeric	Manual entry		Specifies the capacity of the refrigerant used in pounds.		Input must be a numerical value in lbs, i.e., 150
Initial ECM implementation cost (\$)	Currency	Manual entry		Represents the initial cost associated with implementing the Energy Conservation Measure. If design costs went into the implementation of this ECM, please include those		Input must be a numerical value.
Estimated initial savings associated with ECM installation (ESPC estimated year one savings) (\$)	Currency	Manual entry		Estimate of the initial savings associated with the ECM installation, normally in the first year. For example, if your team is replacing a boiler instead of spending \$10,000 to repair an existing boiler, enter 10000 here. This allows for accurate lifecycle cost calculations		Input must be a numerical value.
Annual O&M Cost (\$/year)	Currency	Manual entry		Specify the annual Operations and Maintenance (O&M) cost if it will change due to ECM implementation. If there will be a decrease in O&M costs, enter a negative number here		Input must be a numerical value.
Electric Savings (kWh/year)	Numeric	Manual entry		Indicates the annual electric savings in kWh. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Natural Gas Savings (scf/year)	Numeric	Manual entry		Indicates the annual natural gas savings in standard cubic feet. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Fuel Oil Savings (gallons/year)	Numeric	Manual entry		Indicates the annual fuel oil savings in gallons. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Steam Savings (mmBtu/year)	Numeric	Manual entry		Indicates the annual steam savings in mmBtu. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Chilled Water Savings (mmBtu/year)	Numeric	Manual entry		Indicates the annual chilled water savings in mmBtu. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Propane Fuel Savings (mmBtu/year)	Numeric	Manual entry		Indicates the annual propane fuel savings in mmBtu. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in fuel consumption, enter a negative number here		Input must be a numerical value.
Water Savings (gallons/year)	Numeric	Manual entry		Indicates the annual water savings in gallons. Please ensure the value entered matches the fuel specific units shown in the cell. If there will be an increase in water consumption, enter a negative number here		Input must be a numerical value.
Additional notes about ECM	Text	Manual entry		Any additional notes or comments about the Energy Conservation Measure (ECM) you would like to include.		Enter additional notes/text about ECM.
Certify technology is installed and working properly (CxP/CMA Team Only)	Text	Dropdown		Certify if the technology associated with the Energy Conservation Measure is installed and functioning properly (Exclusive to CxP/CMA team). This should be left blank until project is completed	Yes No	
Email of Certifier (CxP/CMA Team Only)	Text	Manual entry		Email address of the certifier from the CxP/CMA team. This should be left blank until project is completed		Must be valid email address I.e. example@gsa.gov