Specifying BuildingSync® Templates for RFPs and RFQs

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Contract Language Templates

The objective of this document is to standardize the Request for Proposal (RFP) and Request for Qualifications (RFQ) language for BuildingSync® and BuildingSync-adjacent projects. BuildingSync is a schema for exchanging building data with a focus on energy audits. The schema can be utilized by different software and databases involved in the energy audit and analysis process. The language is specified in the form of example templates for identified use cases. Users of this document can target related or similar use cases, find applicable templates, and directly apply or modify based on the templates to create their own RFP/RFQ document.

1.0 Request for Proposal

1.1 <u>Section X.X Energy Audit Deliverables</u>

In this section, RFP language focuses on the standard/traditional energy audit process and how BuildingSync would serve in the auditing workflow for data storage, standardization, transfer and analysis, via functions and toolings around BuildingSync.

1.1.1 "The contractor shall conduct an energy audit in accordance with ASHRAE Energy Audit Guidelines (*ASHRAE Standard 211-2018*) with different levels of granularity (Preliminary Analysis, Level 1, Level 2, Level 3)."

1.1.2 "The contractor shall prepare an energy audit report that describes the facility, [insert your specific requirements here], and includes all calculations conducted in support of the analysis. The audit data shall be provided as a digital appendix, formatted in accordance with the BuildingSync® XML schema (see https://www.buildingsync.net) that passes a required Use Case of [insert your required use case template here] as defined by the Use Case Selection Tool (https://selectiontool.buildingsync.net/use_cases). The digital appendix shall contain all primary data collected or imputed as part of the energy audit, as well as all data associated with the recommended energy conservation measures (ECMs)."

1.1.3 "The contractor shall conduct an energy audit prepared for analysis in BuildingSync® XML schema, and use the BuildingSync Selection Tool (https://selectiontool.buildingsync.net/) to validate the data for the target use case for [insert your required use case template here]."

1.1.4 "The contractor shall adopt BuildingSync® XML schema to standardize the energy audit data format and requirements for a specific use case, and define the

new use case in a Schematron file to be implemented on the BuildingSync Selection Tool for validation."

1.2 <u>Section X.Y Building Data Exchange</u>

In this section, the RFP language focuses on the flexible role of BuildingSync as the data exchange medium between various software tools for different building data workflows and use cases. An overview of the tool chain of the BuildingSync ecosystem could be visualized in Figure 1.
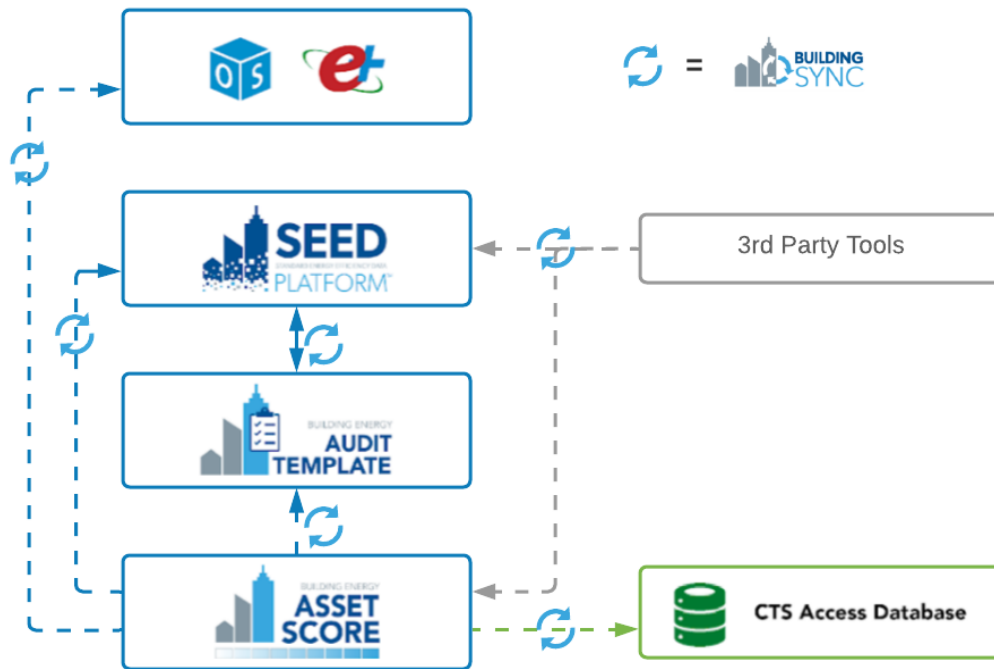

Figure 1. Interconnectivity across many tools via BuildingSync

1.2.1 "The contractor shall develop EnergyPlus and/or OpenStudio models to perform energy analysis based on data in BuildingSync® XML format, (optional) using the BuildingSync-Gem (https://github.com/BuildingSync/BuildingSync-gem/) to enable energy simulations for baseline buildings and different scenarios with measures, and export the analysis results in BuildingSync® XML format."
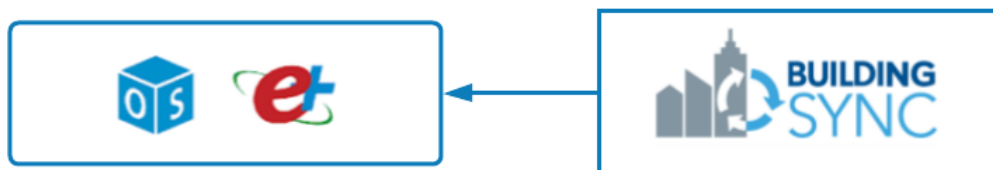

Figure 2. BuildingSync to Building Energy Modeling (BEM) with OpenStudio/EnergyPlus

1.2.2 "The contractor shall conduct energy audit on Audit Template (https://www.energy.gov/eere/buildings/audit-template) or Asset Score (https://buildingenergyscore.energy.gov/rp/buildings) and export audit data in BuildingSync® XML format, to be used in other tools or applications."
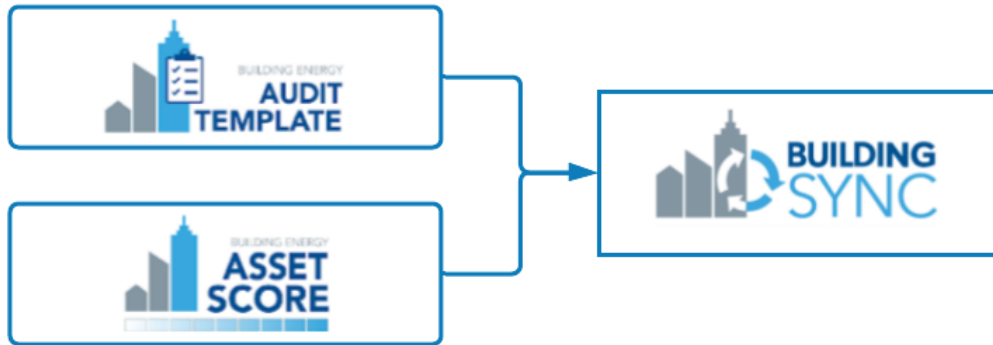

Figure 3. BuildingSync data exchange with Audit Template and/or Asset Score

1.2.3 "The contractor shall catalog energy audits by importing BuildingSync files into the SEED Platform (https://www.energy.gov/eere/buildings/standard-energy-efficiency-data-seed-platform). Analysis results shall be exported from SEED using BuildingSync® XML format."
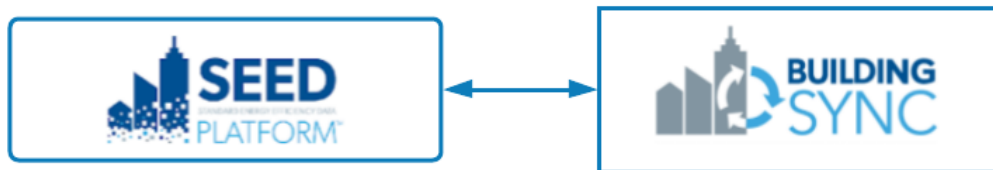

Figure 4. BuildingSync data exchange to/from SEED Platform

1.2.4 "The contractor shall submit audit data into the EISA 432 Compliance Tracking System (CTS, https://ctsedwweb.ee.doe.gov/CTSDataAnalysis/) based on data in a BuildingSync® XML file."
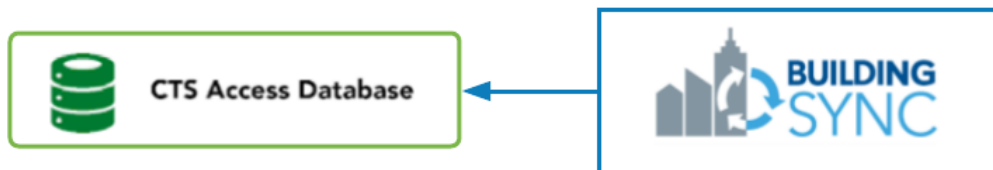

Figure 4. BuildingSync data exchange with EISA 432 Compliance Tracking System

2.0 Request for Qualifications

2.1 <u>Section X.X Scope of Services</u>

2.1.1 "Upon selection, the energy auditing firm shall be required to deliver energy audit data in BuildingSync® XML format (see www.buildingsync.net) that passes a required Use Case of [insert your required use case template here] as defined by the Use Case Selection Tool (https://selectiontool.buildingsync.net/use_cases)."

2.1.2 "To be eligible for candidate selection on this RFQ, firms shall be expected to be familiar with the Department of Energy's Building Energy Data Exchange Specification (BEDES) data dictionary and BuildingSync® data schema and be able to deliver data in compliance with both."

2.1.3 "Agreement to Provide Additional Materials: If the firm is selected as a candidate, additional materials shall include [insert your specific requirements here], and an example of audit data that can be exported in BuildingSync® format. "