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HPwES Express Contract

Contractor Training

Agenda and Introduction

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Agenda

- Introduction: What is the Express Contract workflow?
- HPXML: What's different?
- Getting Started: Application through Approval
- Finishing Up: Project Completion and Document Submission
- Troubleshooting: Error Messages and Accurate Savings Predictions
- Q&A



Introduction

What is the Express Contract workflow?

A new project submission process within the NY HP Portal which will automate workscope reviews for the majority of projects.

The HPXML data format has made it possible to accept multiple market based software tools and implement an automated review process for the HPwES Program.

It was developed through collaboration with Efficiency First NY, BPCA, direct contractor feedback, and pilot testing.





Introduction

A few key features:

- Fully compatible with and requires use of HPXML compliant file uploads.
- All proposed measure details are pulled from the HPXML file. Additional user inputs (such as R-values) are not required to screen eligibility.
- Receive automated workscope reviews and instant feedback.
- Go from project creation to workscope approval within a few minutes.
- Automated, real time pre-approval communication with EFS' Loan Origination System.





HPXML: What's Different?

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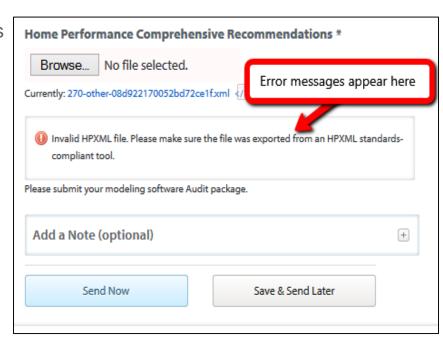
Validation Error Messages

You may receive validation errors if there are problems with the audit, workscope, or completion HPXML file that you uploaded.

The Express Contract workflow enforces full HPXML validation and several new data checks, so you may encounter new errors even if you have successfully uploaded HPXML files in the old workflow before.

The error messages you encounter will generally be one of three main types:

- 1. Required element missing from the HPXML file
- 2. Measure not eligible for auto-approval
- 3. Invalid HPXML file







Validation Error Messages

In order to implement automated project approvals, NYSERDA asked the HPXML modeling software vendors to provide certain data points for the purpose of measure eligibility screening. In turn, the user interface of each tool may have been modified to collect the additional information. If your HPXML file is missing any of the required data elements for the existing building or a proposed improvement, you will receive an error message.

The solution is to add the missing information in your modeling tool and upload an updated copy of the HPXML file. If you are unable to determine which input in the modeling tool needs to be corrected, please send the specific error message and the problematic file to your modeling software vendor for assistance.



NY HPwES **HPXML Requirements** for Modeling **Tools**

This document is posted on the Contractor Support site, for reference.

			HPWES PORTAL STAGE	
	DATA CATEGORIES	MODELING HPXML STAGE	WORKSCOPE HPXML STAGE *	FINAL PROJECT HPXML STAGE
GENERAL INFORMATION	Customer Info	First name, last name, phone number	Same as previous file	Same as previous file
	Site Info	Address, city, state, zip, volume (may be calculated		Jame as premas me
		automatically), number of units, conditioned floor	Same as previous file	Same as previous file
		area (may be calculated automatically), foundation		
		type, number of residents, number of stories		
		above grade, building type, year built, primary fuel		
		type		
	Project Info	N/A	N/A	Actual project completion date
	Contractor Info	First name, last name, email	Same as previous file	Same as previous file
	Measure Info (for all measures,	N/A	Cost, description (unless automatically	Same as previous file
	regardless of type)	N/A	generated by modeling tool)	Sallie as previous life
	Energy Usage Data (actual)	(Consumption) unit of measure, consumption quantity, fuel	Same as previous file, + (savings, by measure and fuel) annual percent reduction, fuel type, unit, total unit savings, total dollar savings	Same as previous file
	Energy Usage Data (modeled)	Baseload, fuel type, consumption by end use, annual consumption	Same as previous file	Same as previous file
G & COOUNG SYSTEMS	Heating System (Boilers & Furnaces)	Annual heating efficiency (units, value), fraction of heating load served, fuel, type	Same as previous file	Same as previous file
	Heat Pumps	Annual cooling and heating efficiency (unit, value), fraction of cooling and heating load served, type, geothermal loop? ³	Same as previous file	Same as previous file
	HVAC Distribution System	Annual cooling/heating distribution system efficiency, ⁴ conditioned floor area served, duct insulation R-value, duct leakage test method, measured duct leakage, ⁵ duct leakage test unit of measurement, visual inspection of leakage?, duct location, duct material, duct system sealed?	Same as previous file	Same as previous file



Some notes about the approved modeling tools:

- Not all modeling tools support every eligible measure or possible scenario for the NYSERDA HPwES Program. Refer to the <u>Software Compatibility Matrix</u> to see which measures each tool currently supports.
- If a tool does not support a measure you are trying to submit, then you may be required to use a different modeling tool for that project. Any suggested workarounds must be pre-approved and submitted to CLEAResult.
- Engage with your software vendor and emphasize enhancement requests to meet your business needs. Users are encouraged to help shape the development priorities for their vendor.





Some notes about HPXML:

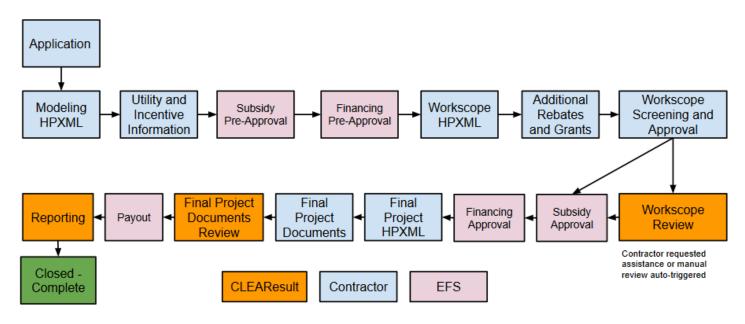
- The HPXML standard continues to evolve. It was found to have some gaps and requires further definition in a few areas. Version 2.2 was released in August 2016. The BPI Working Group 5 is currently discussing version 3.
- Measure codes were added as a short-term solution to address some of these gaps, such as health & safety measures and qualified accessories. Measure codes should <u>only</u> be used for the defined categories, not as a workaround for other items that the tool does not support.
- NYSERDA is working with ESV and the software vendors to resolve outstanding HPXML issues as they arise.



Getting Started: Application Approval



Workflow Overview: Process Flowchart



This workflow has been streamlined from the existing process, but it still has several distinct (and necessary) steps







Create a New Project in Express Contract

Projects can be created during the Audit Claim task;

Would you like to create the contract project now? *

- O Yes, in the HPwES Express Contract workflow
- O No, please do not create a contract project at this time.

+ Add Project ▼

HPwES Contract

HPwES Audit

HPwES Express Contract

HPwES Express Audit

or by using the "Add Project" button on your Dashboard or Active Projects list. The customer intake form is nearly identical to the existing project workflow.



Modeling HPXML stage

Upload your HP Comprehensive Audit Recommendations. Customer name and zip code in HPXML file must match Portal project record. This check is case sensitive.

The Portal will validate the HPXML file to ensure no required data points are missing. If you receive an error message, add the missing information in your modeling tool, re-export, and upload the revised HPXML file.

By entering in this workflow, you agree that the project submitted meets the conditions described above and follows program rules stated in the current Home Performance with ENERGY STAR Contractor Partnership Agreement in effect at the time of this submission.				
Home Perform	nance Comprehe	ensive Recommendations *		
Browse	No file selected.			
	er-11bdc4ec474abb89 r modeling software Ar			
Add a Note	optional)	+		
Sen	d Now	Save & Send Later		



Utility and Incentive Information stage

Customer's utility provider information is entered here, similar to the Audit Claim task. Data will be prepopulated from the Audit project, if available.

Utility information should match Customer Information Form. For delivered fuels, you may enter text or COD as the account number.

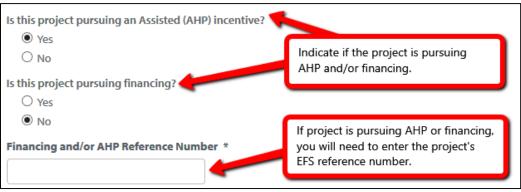
Electric Utility Company *						
Electric Utility Account Number *						
Electricity Usage Summary *						
Browse No file selected.						
For the last 12 or more months (as a PDF or an image). File size is limited to 10 MB.						
Fuel type *						
○ Electricity						
○ Gas						
O oil						
O Propane						
○ Kerosene						
○ Wood						
○ Coal						
O Pellets						
O Other						
Is Primary Heating Fuel Usage available? *						
○ Yes						
○ No						
This building has a secondary heating fuel						
○ Yes						
● No						



Utility and Incentive Information stage

Indicate if the project is pursuing an AHP incentive and/or financing and enter the customer's EFS ID#. This is the critical step for linking the project to EFS' system.

If either question is answered "Yes", the pre-approval will be verified with EFS. The reference number, address, city, and zip code must match EFS' records. If both are answered "No", the project will default to Market Rate and skip the automated EFS pre-approval verification.





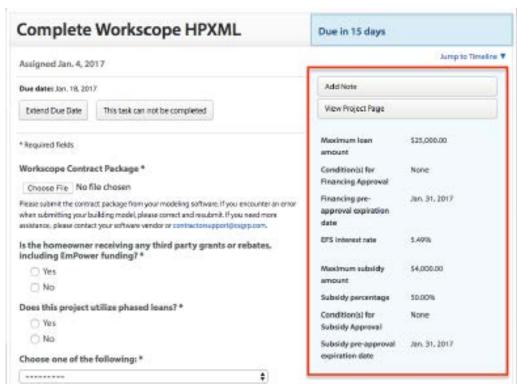




Subsidy and Financing Pre-Approval

For a project pursuing AHP and/or financing, EFS' system sends back a status update within 2-3 minutes. This allows you to confirm the customer's incentive eligibility before uploading the proposed workscope.

The project will either advance to the Workscope HPXML stage and preapproval information will be provided on the right side of the page...



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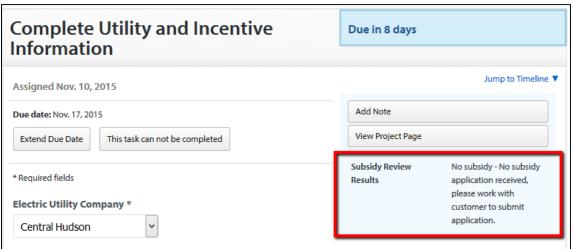
Example of project receiving pre-approval



Subsidy and Financing Pre-Approval

...OR the project will be sent back to the Utility and Incentive Information task with the relevant status update from EFS, such as the interest rate is not available yet.

In either case, you will receive a task notification email when the project is ready for further action on your part.



Example of project returned to Utility and Incentive Information stage

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Workscope HPXML stage

Upload your contracted improvement package at this stage and indicate whether it's a referral or a phased loan. Combined projects will need manual review.

If the homeowner is receiving 3rd party grants or utility rebates, you'll be taken to an additional stage to enter the relevant information.

After clicking "Send Now", users may receive data check warnings related to ineligible measures, BPI 2400 input constraints, or lacking the proper BPI certifications for the proposed measures.

*Required fields

Workscope Contract Package *

Browse...

Please submit the contract package from your modeling software. If you encounter an error when submitting your building model, please correct and resubmit. If you need more assistance, please contact your software vendor or contractorsupport@csgrp.com.

Is the homeowner receiving any third party grants or rebates, including EmPower funding? *

Yes

No

No

Poes this project utilize phased loans? *

Yes

No

Choose one of the following: *

My company is working on this project alone My company is referring work to another NYSERDA contractor My company was referred by another NYSERDA contractor My company is using a subcontractor for this project

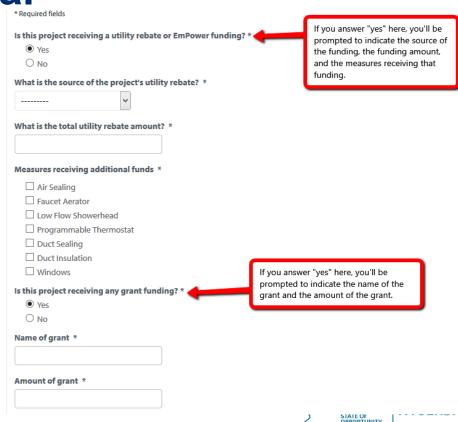


Additional Rebates and Grants

The amount of the utility rebate, EmPower incentive, or 3rd party grant will be deducted from the loan amount or customer out of pocket portion.

The grant or rebate amount entered here is for informational purposes only. The AHP incentive is claimed in the Utility and Incentive Information stage, not entered here.

An example of a 3rd party grant would be the HUD CDBG program.



Additional Rebates and Grants

The AHP can be combined with matching grant funds for the same measures. Measures covered by a utility rebate or EmPower are not eligible for AHP.

If you are not including any EmPower funded measures in the submitted workscope, then the project should skip this stage.

In order for the loan amount to be correct, the sum of measures receiving EmPower funding must match the amount entered. Do not include EmPower contractor incentives (such as audit fees or mileage). ConEd Rebate
Cool Homes Rebate
Corning Gas Rebate
EmPower NY
CHG&E Rebate
NGrid Rebate
NYSEG Rebate
NatFuel Rebate
O&R Rebate
RG&E Rebate
RG&E Rebate
St. Lawrence Gas Rebate





Workscope Screening and Approval

Anticipated Contractor Incentive or Subsidy: Amount of the incentives that will be approved on the Eligibility Summary Report. Market Rate will still be invisible to the customer.

Loan Calculator: Takes you to a chart outlining the loan cost effectiveness screening results for the project.

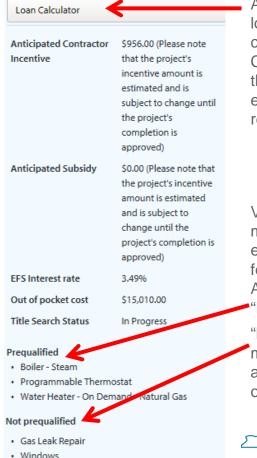
Out of Pocket Cost: The amount to be paid by the homeowner with either financing or out of pocket, based on the submitted workscope total minus customer incentives.

Title Search Status: Status of EFS' title search at time of pre-approval (required for OBR Loans).

Pregualified: This shows which measures are eligible to receive the Market Rate or AHP subsidy incentives.

Not prequalified: Measures that are eligible for loan only.

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After selecting the loan type and term, click on the Loan Calculator to check the loan cost effectiveness results.

Verify that the measures you expected to qualify for Market Rate or AHP subsidy are "Prequalified".

"Not prequalified" means the items are eligible for loan only.



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Workscope Screening and Approval

All project submissions must still answer the SHPO questions. If the project is pursuing financing, you'll also need to indicate the loan type, loan term, interest rate, and customer down payment (if any). Check the Loan Calculator results.

Contractors may request a manual review at this stage, if assistance is needed. Certain data checks and project types will require manual review.

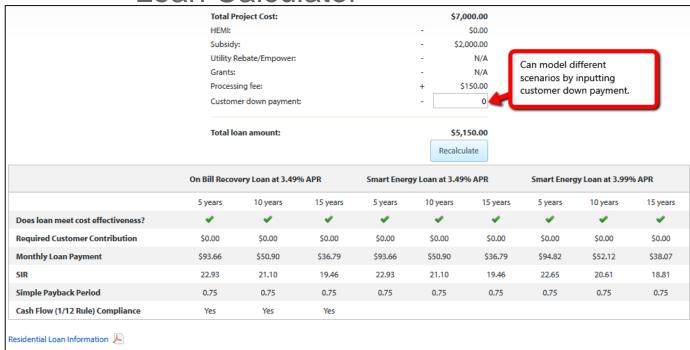
Please ensure the workscope submission is accurate. Notice the first question, is the project receiving incentives as you expected? Once you click Send Now, the Eligibility Summary Report will be generated based on these results.

Please review the anticipated incentives and the list of prequalified and not pre-qualified measures on the right side of the page. Is this list of measures receiving incentives as you expected? * Yes O No Is the home more than 50 years old? * O Yes O No Will original windows, replacement windows installed more than 45 years ago, or doors be replaced as part of the workscope? * O Yes O No Is the work to be performed visible from a public right of way? * O No Loan type * Smart Energy Loan Please make sure to review this chart for useful information about the project's loan options. I hereby affirm that this selection reflects the customer's desired loan product. Loan term * 15 years \$ Interest rate * √ 5.99% What is the customer's down payment? * 0.00 Do you want to send this project to manual review? O Yes O No

Loan Calculator

The loan cost effectiveness is displayed here, before submitting the project for workscope approval.

Link to HPwES loan underwriting criteria.









Manual Workscope Review

- Automated project approvals will skip this stage and go straight to Subsidy and Financing Approval, or Final Project submission if it's Market Rate only.
- Only projects selected for manual review will be assigned to a CLEAResult Program Coordinator to approve. Please allow 1 business day for processing.
- CLEAResult staff have the ability to handle more complex project types and edit incentive amounts, if necessary.
- Certain data checks and project types will require a manual review.



Projects sent to Manual Workscope Review

- AHP customers who also qualify for EmPower and have not opted out
- Multiple projects for the same customer (referrals, phased loans, repeat business, customer switching contractors, etc.)
- Projects with very high usage or savings and possible user input errors
- > Technical review required for proposed geothermal system
- > SHPO review required for proposed windows or doors
- Company is missing proper BPI certification for proposed measure(s)
- Projects where the contractor requested Manual Review
- Some projects will be sent to Manual Review for random quality control checks, based on the contractor's participation status.



Projects sent to Manual Workscope Review

- ➤ Measures with egregious pricing contractors will be asked to submit an itemized workscope. You may also provide an explanation in the Portal notes.
- Program staff will review the information and may ask additional questions.
- Please ensure that measures are itemized appropriately in the HPXML file. It's important to model all major energy saving measures, qualified accessories, and health & safety items separately, so that the costs do not appear to be inflated.
- ➤ Refer to Table 2 of the <u>Eligible Measures</u> list for details about the Non-prequalified measures.



Manual Workscope Review

Program staff use the HPXML Viewer in the project timeline to review the building model details. Please keep in mind that there may be fields in the modeling tool which are not reported in the HPXML file.

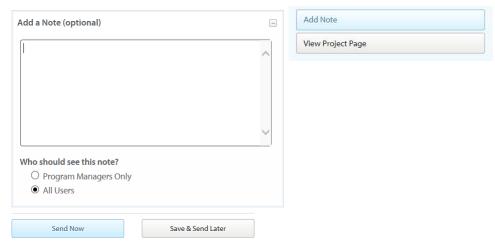


If there is additional information or special circumstances you would like to make the Program aware of, please add notes to the Portal project before it is submitted for Manual Review.



Revision needed:

If the project is sent back for changes or clarifying questions, you will receive a task notification email from the Portal. Please do not reply to these emails. That goes to the Audit Call Center and has to be re-routed.



Your response should be entered in the Portal notes and then resubmit the project for manual review. NYSERDA would prefer all project specific communications to remain in the Portal. You may also request extra help from contractorsupport@clearesult.com.

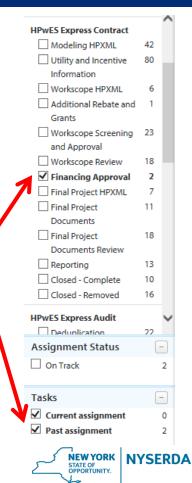


Subsidy and Financing Approval

If the project includes an AHP incentive or loan, it will be sent to EFS for their review. Projects will typically remain in this stage for 1-3 business days, until EFS has completed their review and the loan documents are generated.

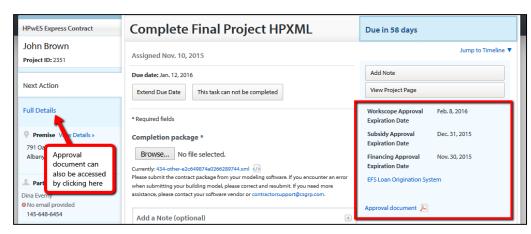
By selecting "Past assignment" from the task filter on the left hand side of your project list, you can see projects that are currently assigned to EFS or CLEAResult in the workflow.

You will receive a task notification email from the Portal when the project is ready for further action on your part. Loan documents will not be available through the NY HP Portal. You must log in to EFS' system to access that information.



Final Project HPXML stage

Once both the workscope and the subsidy and/or financing is approved (if applicable), the project will reach the Final Project HPXML stage.



The Eligibility Summary Report is now available to view, save, or print and is nearly identical to the current report.

There is also a link to EFS' Loan Origination System, to access the loan documents.







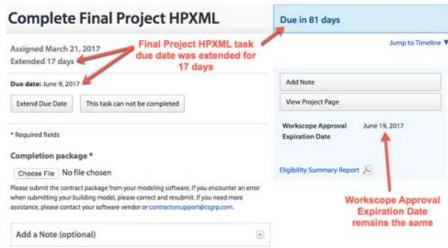
Expired Workscope Approvals and Past Due Tasks

If the Final Project HPXML stage is not completed by the workscope approval expiration date, it will be automatically returned to the Workscope HPXML task with an error message. Projects not completed within the 90-day timeframe are subject to the current eligibility rules and must

be resubmitted for a new approval.

This task becomes past due after 64 days. The Extend Due Date button will "snooze" this reminder, but DOES NOT change the workscope approval expiration date.

Extension requests should be sent to contractorsupport@clearesult.com.



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Finishing Up: Project Completion and Final Documents

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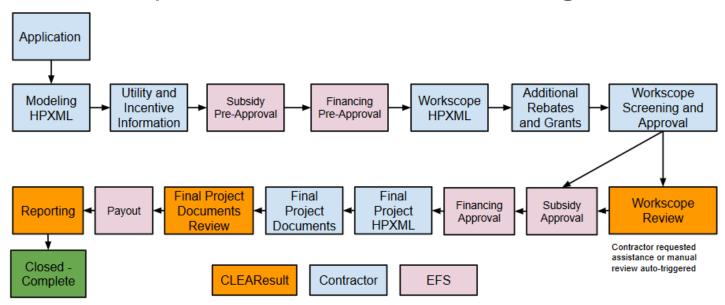


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Finishing Up: Project Completion

Express Contract Workflow Stages



Notice there is no Contract Submission stage in the new workflow. All required documents will be collected during the Final Project submission.

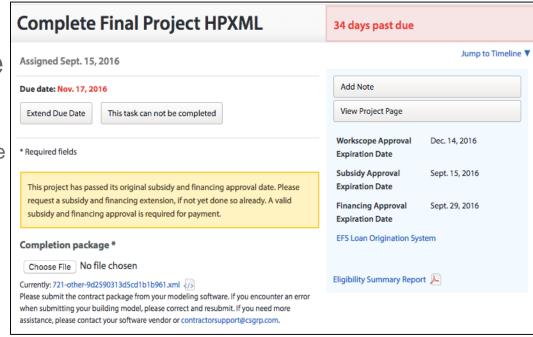
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Finishing Up

Final Project HPXML stage

After work is completed, upload the final retrofit HPXML file with your test-out data. The completion submission must match the most recent approved workscope.

Change orders are submitted by clicking on "This task cannot be completed" and going back through the approval process.



If the original subsidy or financing approval has expired, a warning message will appear. Contractors may still submit the completion, but should contact EFS for an extension. If an extension was previously granted by EFS, the new expiration date will not be reflected in the Portal.



Finishing Up

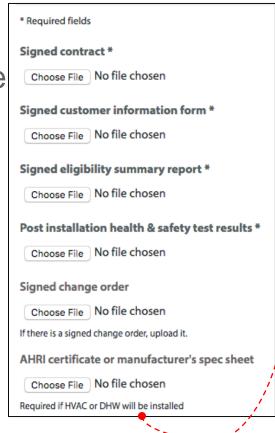
Final Project Documents stage

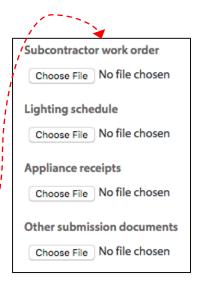
Required Documents:

- Signed Contract
- Signed Customer Information Form
- Signed Eligibility Summary Report
- Post-Installation Health & Safety Test Results

Required, when applicable:

- Signed change order form
- AHRI certificate or spec sheet
- Subcontractor work order
- Lighting schedule
- Appliance receipts









Finishing Up

Final Project Documents Review

All project completions will be assigned to a CLEAResult Program Coordinator to process. We expect faster turnaround times on completion reviews. Remember that by selecting "Past assignment", you can see projects that are currently assigned to EFS or CLEAResult in the workflow.

CLEAResult staff must verify that all required paperwork and signatures are submitted, the test-out passed BPI 1200 standards, and approve the customer / contractor incentives for payment.

You will receive a task notification email from the Portal when the project is either complete or needs a correction. Please do not reply to that email. Enter your response in the Portal notes and resubmit the project for review.



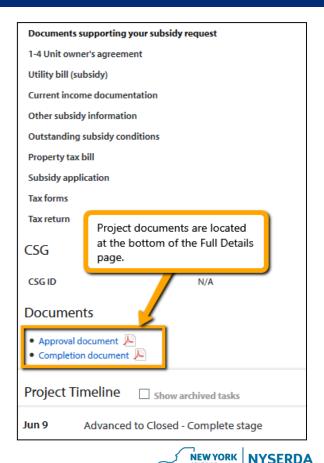
Finishing Up

Project Completion Document

A project is considered complete after it passes the Final Project Documents Review stage and enters Payout or Reporting. The completion document can be accessed from the Full Details screen.

The incentives will be paid by EFS and NYSERDA, in the same manner as the current process.

Projects will move to Closed – Complete once the data has been reported to NYSERDA's system.



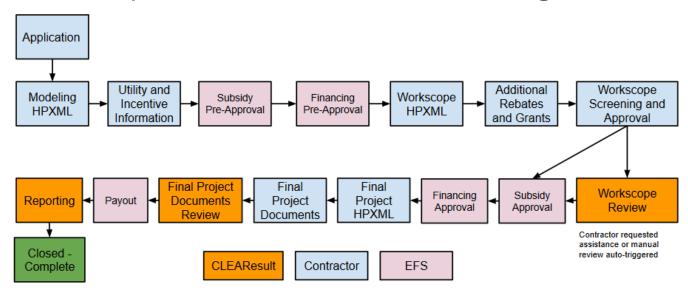


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Finishing Up: Project Completion

Express Contract Workflow Stages



Projects will move through the Payout and Reporting stages after the completion has been processed. These are administrative steps and require no action by the contractor.

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Transition Reminders

Projects that started as TREAT xml or RHA files in the existing Contract Workflow, must be completed using the same software and file type.

Modeling – Completed in less than a day

Completion Data

Home Performance Comprehensive Recommendations File

Modeling software

Download File

Projects cannot be moved from the Contract to Express workflow. If you wish to switch workflows, the project must be deactivated in the old workflow and resubmitted in the new workflow.



Problem: The HPXML file appears to be predicting high energy savings.

Resolution: Please double check the modeling inputs including a true-up to the customer's energy usage. If needed, please correct the file and resubmit or contact your software vendor for modeling assistance. If you are confident the model has been trued-up and the savings are accurate, you may request a manual review in the options below. Please allow 1 business day for processing and check back later for the approval status.

Example of the high savings error message. The Portal will notify you if a manual review is required before you complete the Workscope Screening and Approval stage.

Do you want to send this project to manual review? *

O Yes

No

Required to be yes if high energy savings are predicted.





Accurate Savings Predictions

This is meant to catch user input errors that create high savings outliers and is <u>not</u> an evaluation of the modeling tool savings algorithms.

Some examples include; but are not limited to, identifying outliers in:

- > Existing annual heating, hot water, and baseload consumption
- Existing HVAC equipment efficiency ratings
- Thermostat temperature settings for heating and cooling
- % reduction in energy savings



Accurate Savings Predictions

A renewed focus has been placed on achieving accurate savings predictions for the Program. Projects with unusually high usage or savings will be flagged and not approved until the building model is corrected, or a satisfactory explanation is provided.

Contractors are expected to perform detailed billing analysis and appropriately disaggregate the heating, cooling, and baseload usage, not just true-up the annual fuel usage. Reviewing the energy bill data quality for anomalies, unusual spikes in usage, or gaps in the monthly reads is crucial the true-up process.

Most modeling tools also have the ability to weather normalize the usage and correct for seasonal fluctuations in the number of Heating Degree Days.



High savings warning message: What should I do?

- Make sure the model is trued-up to the fuel bill analysis and the end use consumption properly disaggregated between baseload, heating, and cooling.
- ➤ Check the percentage of savings in the modeling software and which measures show the most savings. Look for clues as to the source of the high savings.
- Work with your software vendor's support to team to correct the file. Modeling assistance and training is the responsibility of the software vendors.
- If you have done these steps and are confident the model is accurate, then you may submit it for manual review by Program staff. However, the project may still get sent back to you for revisions if errors are found in the building model.



BPI 2400 Input Constraints

To further limit high savings caused by user error, the Portal will enforce the min / max values for existing building conditions as shown in the BPI 2400 standard.

If you receive an error message, please adjust the building model inputs accordingly and upload the revised HPXML file.

Table 3.4.i Input Constraints

Input	Minimum Value	Maximum Value
Heating thermostat setpoint	58° F	76° F
Cooling thermostat setpoint	68° F	86° F
Domestic hot water setpoint	110° F	N/A
Forced-air furnace AFUE*	72%	N/A
Hot water / steam boiler AFUE*	60%	N/A
Heat Pump HSPF*	6.5	N/A
Heat Pump SEER*	9.0	N/A
Central air conditioner SEER*	9.0	N/A
Room air conditioner EER*	8.0	N/A
Gas-fired storage water heater EF*	0.50	N/A
Oil-fired storage water heater EF*	0.45	N/A
Electric storage water heater EF*	0.86	N/A





Contractor Resources and Future Enhancements

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Contractor Resources

Please read through the <u>Express Contract User Guide</u> for more in-depth information.

The Help Center also has numerous FAQs and is updated regularly.

• Knowledgebase article: Truing Up Your Project

Program webinar from 10/28/15: <u>Accurate Savings Predictions – Closing the gap between savings predictions and realization rates</u>

Program webinar from 4/13/15: <u>Truing Up to Billing Data – The imperative for accurate software estimations</u>

Weekly blog post series with useful tips, tricks, and reminders. Check your Portal dashboard for updates.



Feedback and Support

Contractor Support and other program staff are available to answer questions and help troubleshoot as needed.

Modeling software vendors have conducted testing in the Express Contract workflow and are prepared to support your modeling questions.

Please submit tickets to Contractor Support with any questions or general pilot feedback.

Help Center: hpwescontractorsupport.com

CLEAResult Contractor Support: contractorsupport@clearesult.com, 800-284-9069





Support Resources



John Spillman (503) 968-7160 ext. 44 jspillman@earthadvantage.com



Ryan Moore (720) 306-1742 ryan@optimiserenergy.com



Sandy Michaels (720) 663-7836 ext. 2 pro@snugghome.com



Clifford Babson (215) 381-2929 ext. 313 cbabson@psdconsulting.com

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Future Enhancements

NYSERDA is working towards launching access to electronic usage data for electric and natural gas directly from the utility companies (EDI).

Combining the EmPower and AHPwES programs into one streamlined submission process for Low to Moderate Income (LMI) customers.



Q & A Forum

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Questions?

To ask a question, type into the **Q&A** field and click **Send**.





Thank You

