

Exhibit G:
Annual Loan Products Narrative Reporting Template

FREDDIE MAC

AFFORDABLE HOUSING PRESERVATION

2018

LOAN PRODUCT

ACTIVITY:

Activity 7 – Financing of Energy or Water Efficiency Improvements on Single-Family Properties; Regulatory Activity..

OBJECTIVE:

Objective B: Develop Valuation Guidelines and Data Collection Requirements.

ACTIONS:

Freddie Mac completed this objective which sets the foundation to complete other objectives in our Plan. Financing energy efficiency improvements through mortgages is challenging in part due to limited guidance on how to assess the value of a home's energy efficiency in appraisals. Additionally, limited information about a home's energy efficiency adds complexity to the valuation process. To address these challenges, we designed a pilot to test valuation and data collection requirements and advocated to include certain energy efficiency data in future versions of the Uniform Appraisal Dataset (UAD).

2018 highlights:

- *To define the scope of our actions, we collaborated with our Energy Efficiency Task Force and other market stakeholders, including the National Association of State Energy Officials, Institute for Market Transformation, Earth Advantage, the D.O.E., Energy Sense Finance, Green MLS, and the Solar Energy Industry Association.*
- *We initiated a pilot program to test the usefulness of data collected in the latest version of the Appraisal Institute's Residential Green and Energy Addendum¹ when used in combination with the PV Value² tool², which calculates the energy-production value for a solar panel, to appraise properties with solar panels. We focused on properties with solar panels because panels are easier for appraisers to identify than other energy-efficiency home features. To assist in marketing to homeowners who have outstanding unsecured solar panel loans, we collaborated with a solar panel financing company that services a large portfolio of solar panel loans and has consumer consent to cross-sell to their customers.*
- *We identified lenders who are committed to and experienced in the energy-efficiency market and selected one to participate in our pilot. The lender selected specializes in a geographic area where adoption of solar-panel technologies in homes is high; during the pilot, we will buy refinance loans from this lender that meet specific collateral valuation requirements we want to test to inform our development of collateral valuation guidelines in the future.*
- *To maximize our actions' impact, we discussed our recommendations to develop data collection requirements with the Uniform Mortgage Data Program (UMDP), an industry initiative being performed jointly by Freddie Mac and Fannie Mae.*
- *We then gathered feedback from our Energy Efficiency Task Force about data requirements for future versions of the UAD, which we will submit to the UMDP project team.*

¹ <https://www.appraisalinstitute.org/assets/1/7/ResidentialGreenandEnergyEfficientAddendum.pdf>

² <https://www.pvvalue.com/>

Our actions set the foundation to design future collateral valuation guidelines based on our pilot findings. Our leadership in discussing energy efficiency data elements with UMPD stakeholders will help ensure that energy efficiency data is included in future versions of the UAD, which will help collect energy efficiency data at the property level.

Activity	2018 Actions
<p>1. Test the use of an upgraded version of the appraisal addendum to collect energy efficiency property information during the appraisal process with at least one lender through a pilot program to further inform operational execution and determine whether further appraisal guidance is needed. The pilot will allow us to calibrate the data that needs to be captured in the appraisal and allow us to identify data points that may be difficult to obtain so we can address such challenges accordingly as we develop the list of additional data points to be incorporated into a revised Uniform Residential Appraisal Report. For this pilot, we plan to partner with at least one appraisal organization.</p>	<p>Created a test and learn pilot that provides collateral valuation requirements to use the Appraisal Institute's Residential Green Addendum to collect property-level information and to obtain inputs from the PV Value tool, which calculates the energy-production value for a solar panel, to determine the opinion of value of each property to be financed through the pilot program.</p> <ul style="list-style-type: none"> • We collaborated with the Appraisal Institute to provide training to targeted appraisers on using both the Green Addendum and the PV Value tool in the appraisal process. • We issued a Term of Business to the identified lender so they can originate and sell refinance loans to Freddie Mac under the requirements we intend to test. • We coordinated the design of marketing efforts with both the lender and the solar panel financing company.
<p>2. Develop infrastructure and processes to better identify and track Freddie Mac loan purchases tied to financing of energy efficient homes or energy efficiency retrofits.</p>	<ul style="list-style-type: none"> • We require that each loan delivered under the pilot be delivered with a unique Investor Feature Identifier (IFI) code so we can track the loans. • We set up the infrastructure and a governance process for reviewing appraisals, gathering feedback from appraisers who appraised properties under the pilot, putting the loans we purchase through our Quality Control process, and collecting and analyzing the appraisal data collected in each loan.
<p>3. Establish governance process, project charter, and industry stakeholder group to engage in conversations to carry out this objective.</p>	<ul style="list-style-type: none"> • We conducted 3 working sessions with our Energy Efficiency Task Force members to get their feedback on the scope of this objective and the actions we planned to take. • Based on the results of our market outreach in Objective A which indicated that lenders' interest in the energy efficiency market was limited, that lenders who were supporting energy efficiency improvements were meeting the limited consumer demand with unsecured financing options, and that they do not systematically track loans secured by energy efficiency properties, we changed the scope of our outreach to focus on market participants closest to the appraisal process.
<p>4. Lead ongoing stakeholder sessions, as per the governance process, to formally start the conversation about incorporating data collection and high efficiency property appraisal guidelines into collateral policy requirements; we plan to engage at least one representative organization from each of the following: national lenders, regional/community lenders, small lenders, appraisal trade organizations, real estate professional organizations and other market participants.</p>	<ul style="list-style-type: none"> • We then collaborated with our task force members and, particularly, the Appraisal Institute, to develop a proposal recommending data elements for inclusion in future versions of the Uniform Appraisal Dataset. • We participated in UMDP project meetings and joint calls with Fannie Mae to provide thought leadership and ideas, based on the feedback collected from our Energy Efficiency Task Force, about the inclusion of energy efficiency data elements into future versions of the Uniform Appraisal Dataset.

SELF-ASSESSMENT RATING OF PROGRESS:

Select the category that best describes progress on this objective for the year.

- Objective met
- Objective exceeded
- Objective partially completed:

- 75-99% (substantial amount)
- 50-74% (limited amount)
- 25-49% (minimal amount)
- 1-24% (less than a minimal amount)
- No milestones achieved

PARTIAL CREDIT JUSTIFICATION:

If the self-assessment above indicated that the objective was partially completed, briefly explain the basis for the share of the objective that was completed. In the explanation, include a discussion of the level of effort expended for the completed actions compared to the level of effort required to complete the entire objective.

(Character limit: 3,000 characters, including spaces)

IMPACT:

Provide a self-assessment of the level of impact that actions under the objective have accomplished.

- 50 – Substantial Impact
- 40
- 30 – Meaningful Impact
- 20
- 10 – Minimal Impact
- 0 – No Impact

IMPACT EXPLANATION:

Answer the following questions.

1. How and to what extent were actions under this objective impactful in addressing underserved market needs or laying the foundation for future impact in addressing underserved market needs? *(Character limit: 3,000 characters, including spaces)*

The work we have completed under this Objective is foundational in addressing two of the major barriers to broader adoption of mortgage products to finance energy-efficiency improvements: limited collateral valuation guidelines and lack of property-level data about a home's energy efficiency. Our actions directly address these market challenges and will help clear obstacles to broader adoption of mortgage products to finance energy-efficiency improvements that can make homes more affordable over time. We demonstrated our market leadership by testing innovative tools that are not widely used in traditional underwriting but that have the potential to address the lack of property level data to inform the appraisal process. Our pilot terms are innovative in leveraging a non-traditional, new, easy to use technology to provide data inputs, not readily available through other sources, into the appraisal process. This technology may make it easier for appraisers to collect useful data points they can use in determining property values. Setting up the pilot was ambitious because it is difficult to identify energy efficient properties-- these are not systematically identified in property databases such as MLS systems. Therefore, we had to develop a creative approach to identify energy efficient properties and leverage our market partnerships to address this challenge. The results of this activity will help us address a challenge our task force and the public has asked the GSEs to address broadly: to provide more collateral valuation guidance. Addressing these challenges may spur more lender participation. Additionally, our pilot offering, although limited, provides incremental liquidity to the market.

Additionally, our actions have led to more discussions with the UMDP team, where we continue to stress the importance of including energy-efficiency property features in future appraisal datasets. And, through the insights we continue to collect from our Energy Efficiency Task Force, we are able to add value to these discussions by bringing forward information and insights that the UMDP team did not have. Our actions will help ensure that appropriate energy efficiency data points are included in future versions of the Uniform Appraisal Dataset, which will help us and other industry stakeholders collect energy efficiency data at the property level. Lastly, by aligning our actions to the UMDP project, we are ensuring broader standardization of data, which is an unmet market need today.

2. **Optional:** How do actions under this objective support future actions detailed in the Plan for the underserved market? If there have been any changes in the planned next steps or timeline for work under or related to this objective, describe the changes and provide a brief explanation. (Character limit: 1,500 characters, including spaces)

Through our pilot and by working with solar industry participants, borrowers interested in refinance options to consolidate their unsecured solar panel loans into their mortgage will now have the option to work with our selected lender to do so. This facilitates the financing of energy efficient homes, one of our key goals under Objective C. The information we gather through the pilot, including feedback from appraisers and the findings from our quality control and appraisal reviews, will inform our future product design efforts and specifically help us determine possible updates to our collateral valuation guidelines for energy efficient homes. Assessing the usability and ease of use of the appraisal tools we are testing under our pilot will provide important information about availability of data and broader use of this tools in the valuation process. Additionally, the information we gain from our pilot results will also inform the discussions about additional data points to include in future revisions of the Uniform Appraisal Dataset and help determine which data points should be required or optional; Freddie Mac is committed to sharing the relevant insights derived from the results of our pilot. We also plan to present our findings and conclusions, to the extent appropriate, to the Uniform Mortgage Data Program project team for consideration.

3. **Optional:** Are there any market factors that adversely impacted the actions under this objective? If so, describe. (Character limit: 3,000 characters, including spaces)

Several initiatives are under way to address the lack of data, increase standardization, and determine data points that could be leveraged in the collateral valuation process, but many of these initiatives are being conducted independently, without much coordination and without consideration of broader operational impacts across the industry. This lack of coordination presents a challenge to creating alignment across the industry and inevitably increases lack of standardization. Additionally, we understand there is limited success to create demand for mortgage products to finance energy efficiency improvements. Most of the lending to support energy efficiency improvements is currently supported by unsecured loans, which present faster and simpler origination processes which are favored by both consumers and energy efficiency improvement contractors and installers. Therefore, our ability to compete with unsecured loan products is limited.

4. **Optional:** How did the actions under this objective contribute to increased or future loan purchases for the underserved market? (Character limit: 1,500 characters, including spaces)

Our pilot program will serve as the foundation for future product development work to identify collateral valuation processes and tools that help assess the value of energy-efficiency property features into the collateral valuation process. Importantly, we have built into our pilot program a feedback loop that will encourage appraisers to tell us how they used the tools being tested and which data points were most useful in determining their opinion of value. We plan to use the information to design follow-up versions of this pilot or to design requirements that could be incorporated in our Seller/Service Guide and published via Guide Bulletins in the future.

Attach the information detailed in the list of documentation specific to the objective that was provided by FHFA.

Exhibit C:
Second Quarter Loan Products Narrative Reporting Template

FREDDIE MAC
AFFORDABLE HOUSING PRESERVATION
Q2: JANUARY THROUGH JUNE 2018
LOAN PRODUCT

ACTIVITY:

Activity 7 – Financing of Energy or Water Efficiency Improvements on Single-Family Properties: Regulatory Activity.

OBJECTIVE:

Objective B: Develop Valuation Guidelines and Data Collection Requirements.

ACTIONS:

Freddie Mac is committed to designing data collection and valuation requirements for energy efficiency improvements that minimize operational burdens on lenders, real estate professionals, and appraisers. To achieve this, Freddie Mac has led stakeholder sessions with our Energy Efficiency Task Force and other market participants, which have included the National Association of State Energy Officials, the Institute for Market Transformation, Earth Advantage, the Department of Energy, Energy Sense Finance, the HELIX project team, the EMPRESS project team, Green MLS, and the Solar Energy Industry Association. Based on our discussions, we determined that there are similar efforts underway across the industry, but that these efforts are largely being managed independently from one another. As a result of this knowledge, during the second quarter of 2018, Freddie Mac began to create an inventory of all similar efforts to standardize the collection of energy efficiency related data at the property level. During the second half of the year, Freddie Mac plans to conduct outreach to entities leading or managing these similar efforts with the purpose to inform our design of data collection requirements.

Additionally, Freddie Mac studied the Appraisal Institute’s Residential Green and Energy Efficient Addendum and evaluated how it could be incorporated into future collateral valuation requirements to capture energy efficiency data at the property level. We assigned an Investor Feature Identifier Code to identify loan-level data for energy-efficient retrofits, improvements on high energy-efficient home mortgages, which allows us to test operational execution for lenders and help with tailoring underwriting flexibilities. During the first half of 2018, we also conducted exploratory calls with members from the Appraisal Institute to better understand the design of their addendum and to coordinate how it could be incorporated into our requirements via limited pilots. Finally, Freddie Mac researched and studied the feasibility of using EiValue, a web-based solar panel valuation tool (www.pvvalue.com), in the property appraisal process. Freddie Mac plans to use what we have learned about these tools to design a pilot to test collateral valuation guidelines.

Activity	Action Reference – Activity 7: Objective B	Status
Test appraisal addendum to collect energy efficiency property information with one lender.	Action 1	<i>In Progress</i> <ul style="list-style-type: none"> • Lenders have been determined • Issuing and Test Pilot
Develop infrastructure and processes to better identify and track Freddie Mac loan purchases, specific to financing energy efficient homes or energy efficiency retrofits.	Action 2	<i>In Progress</i> <ul style="list-style-type: none"> • IFI Code have been assigned to track loan purchases specific to financing energy efficient homes or energy efficiency retrofits • Long Term Tracking
Establish governance process	Action 3	<i>In Progress</i>
Lead ongoing stakeholder sessions and engage national lenders, regional/ community lenders, small lenders, appraisal trade organizations, real	Action 4	<i>In Progress</i>

estate professional organizations and other market participants.		
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SELF-ASSESSMENT RATING OF PROGRESS:

Select the category that best describes progress on this objective for the reporting period.

- On-target to meet or exceed the objective
- Progress delayed and/or partial completion of the objective expected
- Unlikely to achieve any milestones of the objective

ADDITIONAL INFORMATION (IF APPLICABLE):

If the Enterprise is not on target to meet or exceed the objective, briefly explain why. (Character limit: 1,000 characters, including spaces)