

Appendix for RMBS ESG Disclosures

Commentary on RMBS ESG Disclosure Fields

Category	Title of Potential Metric	Open Discussion Items and Commentary
Energy Management	Energy Efficiency Scores	<p>Commentary:</p> <ul style="list-style-type: none"> • HERS ratings are typically done on new construction. • Widespread adoption of HERS will involve originators, borrowers, home builders, appraisers, and other parties <p>Investor Feedback:</p> <ul style="list-style-type: none"> • Prefer granular data (i.e., # loans with HERS rating, average HERS, HERS stratifications) instead of flag indicating HERS rating • Interested if HERS ratings on properties could be updated periodically, • Would like to see MBS pool composition updated as well as pool composition changes <p>Issuer Feedback:</p> <ul style="list-style-type: none"> • Primary concern is around availability of HERS ratings • Currently, loans with HERS ratings typically are pooled into Green Bonds, so the initial recommendation is to recommend disclosure only when HERS rating is material component of a Green Bonds program • Potential privacy concerns could arise, though no issues were immediately identified.
	Green Building Certifications	<p>Commentary:</p> <ul style="list-style-type: none"> • GBCs are used across the industry in various forms of construction (single family, multifamily, commercial). • GBCs more common in CRE, with single-family GBCs coming from newly-built communities. <p>Investor Feedback:</p> <ul style="list-style-type: none"> • Some questions about comparability between GBCs. • Currently, Fannie Mae maintains list of approved GBCs, though as a practical matter most GBCs are currently Energy Star • When multiple different GBCs are in a pool, investors want to know # of each GBC <p>Issuer Feedback:</p> <ul style="list-style-type: none"> • Primary constraint is availability of GBCs, usually due to cost of obtaining GBC • FNMA has indicated willingness to report # of different GBCs in a pool if/when that occurs • Issuer should publish criteria and frequency for reviewing and updating approved GBCs

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Green Mortgage
Program (GMP)

Commentary:

- GMPs vary among issuers, limiting comparability between GMPs

Investor Feedback:

- Investors prefer more granular and comparable data than a “yes/no” flag that the property has a GMP.
- Given limited amount of GMPs, understand that comparability may be limited

Issuer Feedback:

- Despite current lack of comparability between issuers GMP’s, flexibility allows innovation, as market develops.
- Issuers will prioritize transparency in their own GMPs so investors can make their own comparisons and decisions

Phase 2: Considerations for Future Developments of ESG Reporting

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Energy Management	PACE	<p>Commentary:</p> <ul style="list-style-type: none"> • Some discussion about whether issuers should include whether a property was ever subject to a PACE lien, which may provide some ESG insights into the collateral • Properties that have an energy improvement financed by PACE, but where the debt is paid off and the lien is removed, would not be identified (potential undercount) • Would only be available in states that allow residential PACE (currently, California, Missouri, Florida) <p>Investor Feedback:</p> <ul style="list-style-type: none"> • PACE “nice to have”, especially as it provides insights into the presence of funding energy improvements that met PACE guidelines. <p>Issuer Feedback:</p> <ul style="list-style-type: none"> • Reporting PACE liens outside of PACE securitizations may be of limited value, and would involve additional costs • There are differing policy views of the efficacy of residential PACE
Category	Title of Potential Metric	Open Discussion Items and Commentary
Physical Climate Risk (FEMA Resources)	Flood Maps	<p>Commentary:</p> <ul style="list-style-type: none"> • FEMA flood maps are widely used across the industry. But they are used for different purposes, and adapting them for use in MBS reporting could require more consistent data and market education • FEMA flood maps are based on historical events, and climate change and future weather patterns that may not be accurately reflected in the flood zone designations. • There is work underway to update these flood maps, which are reliant on state and local authorities gathering and reporting that data to FEMA. <p>Issuer Feedback:</p>

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		<ul style="list-style-type: none"> Issuers have expressed an interest in learning what investor and market perception of FEMA NRI scores, and what investors are looking for. They have also expressed an interest in a better understanding of the differences in the updated Risk Rating 2.0. <p>Investor Feedback:</p> <ul style="list-style-type: none"> Some investors receive flood data, and they would prefer to continue to receive it. They are interested in discussing with issuers what obstacles exist, and how to approach challenges related to disclosure
	FEMA National Risk Index	<p>Commentary:</p> <ul style="list-style-type: none"> FEMA NRI is relatively new, but there was interest from both issuers and investors about how to incorporate FEMA NRI scores into MBS disclosures For ESG, prioritization of flood and wildfire elements of NRI <p>Issuer Feedback:</p> <ul style="list-style-type: none"> Interested in market perception of FEMA NRI scores, and to learn about FEMA NRI and reporting at county/census tract level
	FEMA Declared Disaster Areas	<p>Commentary:</p> <ul style="list-style-type: none"> Discussed whether properties in FEMA disaster areas would distinguish between environmental disasters (flooding, fires, etc.) which are more aligned with physical risk categorization, and other disasters (COVID-19) that don't have as direct a link to physical risk.
Category	Title of Potential Metric	Open Discussion Items and Commentary
Greenhouse Gas Emissions	Actual GHG Emissions	<p>Commentary</p> <ul style="list-style-type: none"> Unlike CRE, property-specific utility usage data is generally unavailable due to Personally Identifiable Information (PII) privacy concerns
	Estimated GHG Emissions	<p>Commentary</p> <ul style="list-style-type: none"> Some discussion related to utilities releasing aggregated and/or anonymized energy usage data that wouldn't be traceable to a specific borrower, but there are challenges with this approach

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| | | <ul style="list-style-type: none">• PCAF scores could potentially be useful data for construction of a property, as well as in the ongoing GHG emissions.• However, PCAF does not currently account for the structured aspects of securitization when estimating financed emissions for securitized products. |
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