## **Green Bond Fact Sheet**

| Japan Housing Finance AgencyDate: 22-Feb-2019Issue date: 21-Jan-2019 Maturity date: 20-Jan-2039 Tenor: 20 |  |   |   |  |
|---|--|---|---|--|
| Issuer Name   | Japan Housing<br>Finance Agency  | Amount Issued   | JPY10bn (USD91m)  |  |
| Country of risk   | Japan  | CBI Database  | Included  |  |
| Issuer Type <sup>1</sup>  | Government-backed<br>entity  | Bond Type   | Green bond  |  |
| Green Bond Framework  | N/A  | Second party opinion  | N/A   |  |
| Certification Standard  | Not certified  | Assurance report  | N/A   |  |
| Certification Verifier  | N/A  | Green bond rating   | N/A   |  |
| Use of Proceeds   |  |   |   |  |
| Energy  | <ul> <li>Solar</li> <li>Onshore wind</li> <li>Offshore wind</li> <li>Geothermal</li> <li>Hydro</li> </ul>  | <ul> <li>Tidal</li> <li>Biofuels</li> <li>Bioenergy</li> <li>District heating</li> <li>Electricity grid</li> </ul>                | <ul> <li>Energy storage</li> <li>Energy performance</li> <li>Infrastructure</li> <li>Industry: components</li> <li>Adaptation &amp; resilience</li> </ul> |  |
| ⊠ Buildings   | <ul> <li>☑ Certified Buildings</li> <li>□ HVAC systems</li> <li>☑ Energy</li> <li>performance</li> </ul>   | <ul> <li>Water performance</li> <li>Energy storage/meters</li> <li>Other energy related</li> </ul>                                | <ul> <li>Industry: components</li> <li>Adaptation &amp; resilience</li> </ul>   |  |
| ☐ Transport   | <ul> <li>Electric vehicles</li> <li>Low emission</li> <li>vehicles</li> <li>Bus rapid transit</li> <li>Passenger trains</li> <li>Urban rail</li> </ul> | <ul> <li>Freight rolling stock</li> <li>Coach / public bus</li> <li>Bicycle infrastructure</li> <li>Energy performance</li> </ul> | <ul> <li>Transport logistics</li> <li>Infrastructure</li> <li>Industry: components</li> <li>Adaptation &amp; resilience</li> </ul>                        |  |
| Water & wastewater  | <ul> <li>Water distribution</li> <li>Water treatment</li> <li>Wastewater</li> <li>treatment</li> <li>Water storage</li> </ul>                          | <ul> <li>Storm water mgmt</li> <li>Desalinisation plants</li> <li>Erosion control</li> <li>Energy performance</li> </ul>          | <ul> <li>Infrastructure</li> <li>Industry: components</li> <li>Adaptation &amp; resilience</li> </ul>   |  |

## Climate Bonds

| Waste management                   | <ul> <li>Recycling</li> <li>Waste prevention</li> <li>Pollution control</li> </ul>  | <ul> <li>Landfill, energy capture</li> <li>Energy performance</li> <li>Infrastructure</li> </ul>   | <ul> <li>Waste to energy</li> <li>Industry: components</li> <li>Adaptation &amp; resilience</li> </ul> |
|------------------------------------|---|--|--|
| □ Land use & agriculture           | <ul> <li>Afforestation/parks</li> <li>FSC Forestry</li> <li>FSC Cellulose &amp;</li> <li>paper</li> </ul>   | □ Land remediation<br>□ Energy/water efficiency  | <ul> <li>Sustainable agriculture</li> <li>Adaptation &amp; resilience</li> </ul>                       |
| □ Other                            | □ Adaptation & resilience   |  | □ Industry: process  |
| Issue details                      |   |  |  |
| Reporting                          |   |  |  |
| Company information                | JHF is a government-backed agency, which acquires mortgages from originating banks and refinances itself in the bond market by issuing <u>RMBS</u> securitisations or bonds.  |  |  |
| Firsts, records and certifications |   |  |  |
| Proceeds description               | Its bond scheme was selected as a pilot project by the Ministry of the Environment<br>of Japan (MoEJ) under its <u>Pilot Project for Green Bond Issuance</u> . The alignment of<br>pilot projects to Japan's Green Bond Guidelines 2017 is checked by MoEJ and its<br>contractors – in this case, E&E Solutions and JCR.  |  |  |
|                                    | Eligible assets are limited to mortgages on newly constructed Flat 35S housing,<br>which covers low-carbon houses with primary energy consumption level 4 or<br>higher or thermal insulation performance level 4, as well as houses with an<br>approved energy efficiency improvement plan, and each is asset is verified by an<br>inspection agent, certified by JHF. The pool of mortgages their debut green bond<br>refinances were originated in autumn 2018. |  |  |
| Climate Bonds view                 | JHF is a government-backed agency, which acquires mortgages from originating banks and refinances itself in the bond market by issuing <u>RMBS</u> securitisations or bonds. Similar to Fannie Mae in the US, it plays a key role in financing residential properties in Japan, and can leverage its position to promote investment in energy efficient buildings.  |  |  |
|                                    | Its <u>Flat 35S</u> is a fixed-rate mortgage product, which provides financial incentives for<br>high-quality, energy-saving and earthquake-resilient housing. In addition to the<br>green bond, JHF's two recent RMBS deals (Series 140 and Series 141) include Flat<br>35S collateral, so we would hope to see more green issuance from JHF going<br>forward.   |  |  |
|                                    | to 5, where Level 5 is the<br>is the worst. Level 4 corr<br>standards, and Level 5 is   | n level and insulation performa<br>e best in terms of energy effici<br>responds to the current nation<br>5 10% better. Consequently, th<br>e most energy efficient in Japa | ient performance and Level 1<br>nal energy efficiency<br>ne housing financed with the                  |

## Climate Bonds

|                   | Climate Bonds Taxonomy. However, we encourage all issuers to make information<br>on the assets financed by a green bond publicly available for market transparency. |
|-------------------|---|
| Underwriters      |   |
| Deal comments     |   |
| Credit Rating     |   |
| Pricing summary   |   |
| Investors summary |   |

<sup>1</sup> Issuer categories: ABS, development bank, financial corporate, government-backed entity, loan, local government, non-financial corporate, sovereign