S&P Global Ratings

Green Evaluation

# Ygrene Energy Fund Inc.'s GoodGreen Series 2019-2 Notes

## Transaction Overview

GoodGreen 2019-2 is a special-purpose vehicle (SPV) created to issue $315 million in private placement notes (series 2019-2) secured by a portfolio of property-assessed clean energy (PACE) loans in California, Florida, and Missouri. PACE programs allow for low-cost financing of a variety of energy efficiency, renewable energy, water conservation, storm protection, and seismic improvements on residential and commercial properties. The PACE loans are repaid through a special tax or an annual or semiannual assessment on a property's tax bill. Ygrene Energy Fund Inc., the transaction sponsor, is a leading financing company that provides residential, multifamily, and commercial property PACE financing throughout the U.S. It provides collateral in the form of the PACE asset portfolio and uses the liens and tax payments to support the securitization. The notes are nonrecourse obligations of GoodGreen 2019-2 and are payable solely from the PACE assets. For the purposes of this evaluation, we assess the technologies in the underlying collateral assets.

| | |
|---|---|
| **Entity:** | GoodGreen 2019-2 |
| **Subsector:** | Specialized Finance |
| **Location (HQ):** | California, U.S. |
| **Financing value:** | $315 million |
| **Amount evaluated:** | 98% |
| **Evaluation date:** | Sept. 30, 2019 |

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## Green Evaluation Overview

### Transaction's Transparency — 57

- Use of proceeds reporting
- Reporting comprehensiveness

### Transaction's Governance — 81

- Management of proceeds
- Impact assessment structure

### Mitigation — 81

| **Sector** | → | **Net Benefit Ranking** | → | **Hierarchy Adjustments** |
|---|---|---|---|---|
| Renewable Energy | | Solar | | Carbon |

### Adaptation — NA

100

E1

E2

E3

E4

0

**Overall Score**

**E1/77**

Weighted aggregate of three

(Transparency + Governance + Mitigation)

## Project Description

GoodGreen 2019-2 will use the $315 million in private notes to acquire and securitize a portfolio of PACE assets in California, Florida, and Missouri. PACE programs were established by state legislation and approved by local governments as a mechanism to provide low-cost financing for energy and water efficiency retrofits, distributed renewable energy generation, and (in some locations) storm resilience and seismic improvements for residential and commercial properties. PACE financings are repaid via an annual or semiannual assessment or special tax on the property owner's tax bill. PACE programs enable home and business owners to cover the upfront cost associated with environmentally beneficial property improvements and repay the financing over longer terms than are typically commercially available for similar projects.

The proceeds of the notes are allocated to green building refurbishments (81%), renewable energy (16%), water conservation (1%), and some energy efficiency projects (<1%) in California, Florida, and Missouri. S&P Global Ratings considers 98% of the total pool of funding in our analysis, excluding 2% of proceeds that are allocated to seismic improvements, hardscape, and other projects, which are currently out of the scope of our Green Evaluation, but still eligible for PACE funding.

Ygrene, a provider of residential and commercial PACE financing, is the transaction sponsor and it or an affiliate originates the PACE assets backing the securitization. Ygrene partners with local and regional governmental entities to administer and fund their PACE programs. The GoodGreen 2019-2 transaction involves assets issued through California and Florida PACE programs, similar to Ygrene's GoodGreen 2018-1 and 2019-1 notes, both of which also achieved an E1 score in our Green Evaluation. Unlike past transactions, the 2019-2 securitization includes assets in Missouri, though they make up about 2% of the allocation. To qualify for PACE financing, property improvements must meet program guidelines that each local agency develops. The guidelines typically restrict PACE funding to a set of authorized improvements that conserve energy or water, deploy renewable energy, and, in Florida, provide resilience improvements to protect against storm damage. The programs provide clear project selection criteria, a factor we see as beneficial for the governance of the transaction under our approach. The municipalities service the PACE assets through their annual or semiannual tax collection process and remit payments via a trustee to the holder of the PACE bonds. The PACE assets serve as the collateral, and the property liens and tax payments form the security.

## Scoring Summary

This transaction achieves an overall Green Evaluation score of E1 on our scale of E1 (highest) to E4 (lowest) and an overall score of 77. The evaluation reflects a Mitigation score of 81 that is supported by building refurbishment, renewable energy installations, and energy efficiency measures in states with a total grid carbon intensity that we consider medium-high, coupled with water conservation initiatives in areas with extremely high water stress. Our hierarchy overlay reflects the role technology plays in the transition to a low-carbon economy. The E1 score also reflects the strong Governance (81) enabled through the defined eligibility criteria underlying the Florida, Missouri, and California PACE programs along with third-party verification of bond proceeds allocation. The Transparency score of 57 reflects some reporting of environmental impacts annually, although the requirement to disclose this information only to interested parties instead of publicly on a website or alternative platform mitigates this.

In our opinion, this transaction is aligned with the Green Bond Principles 2018 (GBP).

## Rationale

- The GoodGreen 2019-2 notes achieve a strong Governance score via the robust eligibility criteria established by the California, Florida, and Missouri programs underlying the PACE assets and the securitization structure that includes representations and warranties governing the use and management of proceeds. The Transparency score is 57, reflecting some reporting of environmental impacts to interested parties, but a lack of detailed, project-level environmental impact assessments.

- We consider the renewable energy projects, which consist largely of solar photovoltaics (PV) in California, to be long-term green solutions placed at the top end of our carbon hierarchy, contributing to the overall Mitigation score.

## Key Strengths And Weaknesses

The proceeds from the GoodGreen 2019-2 notes will fund the securitization of a portfolio of PACE assets in California, Florida, and Missouri, and finance a number of green building refurbishment, renewable energy, water conservation, and energy efficiency improvements. We assessed about 98% of the collateral pool, including green energy assets, green building assets, and water improvement-related assets. We assessed both collateral and prefunding projects. The prefunding projects accounted for about 23% of the funds assessed. The closing PACE assets are largely residential improvements and make up 90% of the underlying collateral. The remaining 10% of the underlying collateral is composed of commercial assets. The majority (73%) of the assets in GoodGreen 2019-2 are in Florida, with the remaining 25% located in California and 2% in Missouri. The range of projects financed through the PACE assets that we evaluated are mainly for green building refurbishments, which represent 81% of the pool, and include a number of building refurbishment measures, such as wall insulation; roofing retrofits; heating, ventilation, air conditioning (HVAC) upgrades; window and door replacement; and high-efficiency LED lighting upgrades. We treat wind-resistant doors, windows, and roofing using comparable green refurbishment proxies given the efficiency benefits associated with these resilience improvements. The residential and commercial green refurbishment PACE assets in Florida achieve the highest net benefit scores given the comparatively medium-high carbon intensity of the Florida grid given the state's reliance on fossil fuel-based assets and the relatively higher carbon emissions avoided through these efficiency measures. Refurbishment of residential windows, doors, and skylights, as well as residential HVAC systems represented a significant proportion of the assets, and was a key factor in the Mitigation score. Renewable energy projects in GoodGreen 2019-2 account for 16% of total value of projects evaluated and are mainly allocated to distributed PV systems in California, Florida, and Missouri. These factors drive the Mitigation score of 81 for the GoodGreen 2019-2 notes.

The transaction's Governance and Transparency reflects robust proceeds allocation, management, and reporting. The strong Governance score is supported by the underlying PACE programs, which outline defined selection criteria for eligible assets. These guidelines include some qualified improvement types that fall into categories such as energy efficiency, renewable energy, water management, and emerging technology and innovative solutions that ensure that the PACE assets supporting the securitization involve environmentally beneficial projects. The local governmental entities verify the PACE liens and a third-party due diligence report is prepared for assets at the securitization level, which provides additional assurance that proceeds are funding eligible projects. The securitization structure also includes a series of representations and warranties that govern the use and management of proceeds. The proceeds' prefunded portion is held in a separate subaccount where no other funds can be commingled. Transparency is moderate, at 57. Our analysis considers the transaction's requirement to report on the proceeds allocation and overall environmental impact; it also evaluates the depth of this reporting, which is somewhat lacking in terms of detailed, project-level environmental impact reporting. Overall, the transaction scores highly in terms of Governance, achieving 81, and moderate in Transparency, achieving 57.

### Second Opinion On Green Bond Principle Alignment

Based on our Transparency score of 57 and Governance score of 81, and that 100% of proceeds have or will be allocated to green projects, we expect this bond to meet the basics of the four pillars of the voluntary GBP given the issuer has committed to:

- allocating the full amount of the net proceeds of bonds to eligible green projects - as defined by the issuer,
- using clear "green" criteria (as defined by issuer) to select projects for funding,
- managing and tracking proceeds (potentially with the use of sub accounts), and
- committing to regular reporting of environmental impact and use of proceeds.

A Green Evaluation is a point in time assessment and is not monitored.

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## Sector level scores

| Sector | Location | Technology | Use of Proceeds (US$) | Use of Proceeds Treatment | Net Benefit Ranking |
|---|---|---|---|---|---|
| Green Energy | California | Solar Power | 22 mil | Estimated | 39 |
| Green Energy | Florida | Solar Power | 21 mil | Estimated | 49 |
| Green Energy | Missouri | Solar Power | 0.1 mil | Estimated | 67 |
| Energy Efficiency | Missouri | Residential Appliances | 4 mil | Estimated | 34 |
| Green Buildings | California | Refurbishment: Commercial Miscellaneous | 2.5 mil | Estimated | 53 |
| Green Buildings | California | Refurbishment: Residential Miscellaneous | 6 mil | Estimated | 77 |
| Green Buildings | Florida | Refurbishment: Commercial Miscellaneous | 1 mil | Estimated | 80 |
| Green Buildings | Florida | Refurbishment: Residential Miscellaneous | 91 mil | Estimated | 90 |
| Green Buildings | Missouri | Refurbishment: Commercial Miscellaneous | 0.06 mil | Estimated | 100 |
| Green Buildings | Missouri | Refurbishment: Residential Miscellaneous | 1.3 mil | Estimated | 99 |
| Green Buildings | California | Commercial HVAC | 2 mil | Estimated | 60 |
| Green Buildings | California | Residential HVAC | 11 mil | Estimated | 80 |
| Green Buildings | Florida | Commercial HVAC | 1.6 mil | Estimated | 90 |
| Green Buildings | Florida | Residential HVAC | 22 mil | Estimated | 100 |
| Green Buildings | Missouri | Commercial HVAC | 0.2 mil | Estimated | 100 |
| Green Buildings | Missouri | Residential HVAC | 2.6 mil | Estimated | 100 |
| Green Buildings | California | Refurbishment: Commercial Insulation | 0.5 mil | Estimated | 50 |
| Green Buildings | California | Refurbishment: Residential Insulation | 15 mil | Estimated | 63 |
| Green Buildings | Florida | Refurbishment: Commercial Insulation | 3.5 mil | Estimated | 51 |
| Green Buildings | Florida | Refurbishment: Residential Insulation | 62 mil | Estimated | 71 |
| Green Buildings | Missouri | Refurbishment: Residential Insulation | 0.2 mil | Estimated | 100 |
| Water | Florida | Conservation: Residential Building | 0.2 mil | Estimated | 48 |
| Water | California | Conservation: Residential Building | 3 mil | Estimated | 67 |
| Water | California | Conservation: Commercial Building | 0.3 mil | Estimated | 10 |
| | | | **274 mil** | | |

# Carbon

**Green Evaluation Process**

| 57 | 81 | 81 | | E1/77 |
|---|---|---|---|---|
| Transparency | Governance | Mitigation | Weighted aggregate of three (Transparency + Governance + Mitigation) | Overall Score |

| Technology | Baseline Carbon Intensity | Net Benefit Ranking | → Carbon Hierarchy Adjustment | Environmental Impact Score | Proceeds (USD mil.) |
|---|---|---|---|---|---|
| | High — Low<br>CA, FL, MO | | | | |
| Wind power | | | Increasing Decarbonization Impact | | |
| **Solar power** | | | | | |
| Small hydro | | **44** | **Systemic decarbonization** | 86 | **43** |
| Large hydro (excluding tropical areas) | | | | | |
| Energy management and control | | | | | |
| Unspecified | | | | | |
| Green transport without fossil fuel combustion | | | Significant decarbonization in sectors already aligned with a green economy | | |
| Green buildings – new build | | | | | |
| Unspecified | | | | | |
| **Energy efficient projects (industrial and appliance efficiencies)** | | **90** | **Alleviating emissions of existing carbon-intense industries** | **84** | **.07** |
| Green transport with fossil fuel combustion | | | | | |
| **Green buildings refurbishment** | | **81** | | **80** | **227** |
| Unspecified | | | | | |
| Nuclear | | | Decarbonization technologies with significant environmental hazards | | |
| Large hydro in tropical areas | | | | | |
| Unspecified | | | | | |
| Coal to natural gas | | | Improvement of fossil-fueled activities' environmental efficiency | | |
| Cleaner fuel production | | | | | |
| Cleaner use of coal | | | | | |
| Unspecified | | | | | |

# Water

## Green Evaluation Process

| 57 | 81 | 81 | | E1/77 |
|---|---|---|---|---|
| Transparency | Governance | Mitigation | Weighted aggregate of three (Transparency + Governance + Mitigation) | Overall Score |

| Technology | Baseline Water Stress | Net Benefit Ranking | → | Water Stress and Hierarchy Adjustment | Environmental Impact Score | Proceeds (mil. US$) |
|---|---|---|---|---|---|---|
| | High – Low<br>CA,FL,MO | | | | | |
| Recycling wastewater for water (agricultural uses)<br>Recycling wastewater for water (other uses)<br>Wastewater treatment with no energy recovery<br>Wastewater treatment with energy recovery<br>Unspecified | | | Increasing Water Sustainability ↑ | Increasing freshwater availability through system enhancements | | |
| Reducing water losses in water distribution network<br>Unspecified | | | | Improving delivery of existing freshwater supplies | | |
| Water desalination to supply municipal water<br>Unspecified | | | | Increasing freshwater availability with significant negative environmental impact | | |
| **Conservation measure in residential buildings**<br>**Conservation measure in commercial buildings**<br>Conservation measure in industrial buildings<br>Smart metering in residential buildings<br>Unspecified | | 61 | | **Reducing demand on potable water supplies** | 54 | 4 |

## Our Green Evaluation Approach

Weighted aggregate of three:

Transparency + Governance + Mitigation or Adaptation = Green Evaluation

Common approach used amongst opinion providers

Unique to S&P Global Ratings

**Transparency**

- Use of proceeds reporting
- Reporting comprehensiveness

**Governance**

- Management of proceeds
- Impact Assessment Structure

**Mitigation**

Buildings, industrial efficiencies, energy infrastructure, transport, and water

**Net Benefit Ranking**

eKPI's: Carbon, Waste, Water Use

**Hierarchy Applied**

**Environmental Impact**

**Mitigation Score**

**Adaptation**

Resilience capex such as flood defenses, asset protection etc.

**Cost Benefit Ranking**

Resilience benefit ratio: Estimate of reduction in damages if event occurs

**Resilience Level**

**Adaptation Score**

**Final Green Evaluation (E1- E4 or R1- R4)**

eKPI – Environmental Key Performance Indicator

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