



GSSG SOLAR

Impact Report



2025



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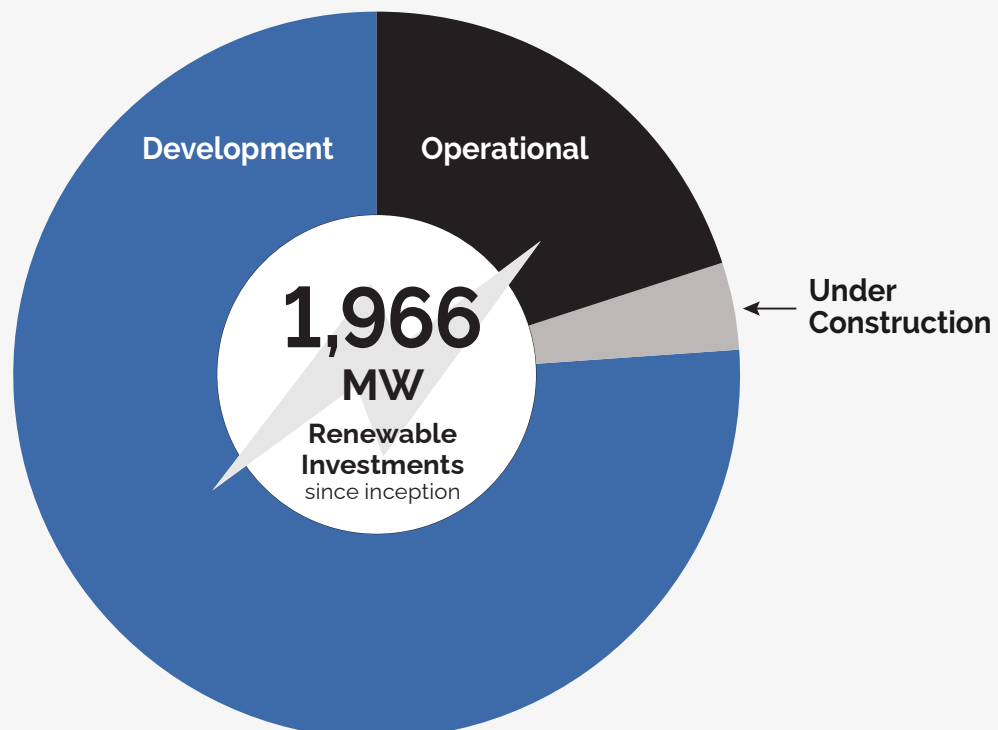
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INTRODUCTION

GSSG Solar Celebrates 13 Years of Renewable Generation and New Commitment to BESS

In its 13th year, GSSG Solar celebrates both its historical commitment to and investments in renewable generation as well as its new commitment to BESS—to effectively support Japan's decarbonization while preserving financial returns.

This sixth annual Impact Report documents the non-financial impacts of our first twelve years of investing, financing, and building renewable energy projects worldwide. We have successfully placed 418 MW of solar projects into operation and have another 308 MW under construction and development globally. Over the last two years GSSG has expanded its focus into battery energy storage to support the large-scale penetration of PV into the Japanese grid, most notably with the launch of the GSSG Chikuden joint venture in May 2025 with committed funding of \$400,000,000.



Global Uncertainty Forces Energy Independence

Over the past year, global political uncertainty has dominated headlines. From the war in Ukraine to the renewed US tariffs, to the US conflict in the Middle East upending energy supply routes—energy security continues to be a critical theme on the world stage. Island nations such as Japan are especially focused on strengthening energy independence. Prime Minister Takaichi has identified energy security as a central pillar of her administration.

Middle East Conflict

The conflict in the Middle East highlights the urgency behind Japan's push for energy security. Since tensions escalated, gas prices in Japan have nearly doubled, as reflected in the JKM benchmark. This increase is directly tied to geopolitical instability, given that roughly 10% of Japan's LNG imports originate from the Middle East. More critically, over 90% of Japan's oil imports come from the same region.

An even greater vulnerability lies in transportation of the oil products as the vast majority of Japan's imported oil passes through the Strait of Hormuz. Any disruption in this choke-point could lead to significant restrictions on supply. While Japan maintains strategic oil reserves (254 days), prolonged conflict would lead to increased volatility in energy prices.

Energy Security

Prime Minister Takaichi has made energy security a national priority as an island nation with heavy reliance on imported energy resources. As a result, the country relies heavily on imported energy.

To combat this Japan has consistently implemented key renewable energy targets. Currently the country is targeting 36-38% of total generation powered by renewable energy by 2030. Takaichi sees that energy security is essential to the stability of a nation that is impacted more significantly than other nations due to its geographic situation.

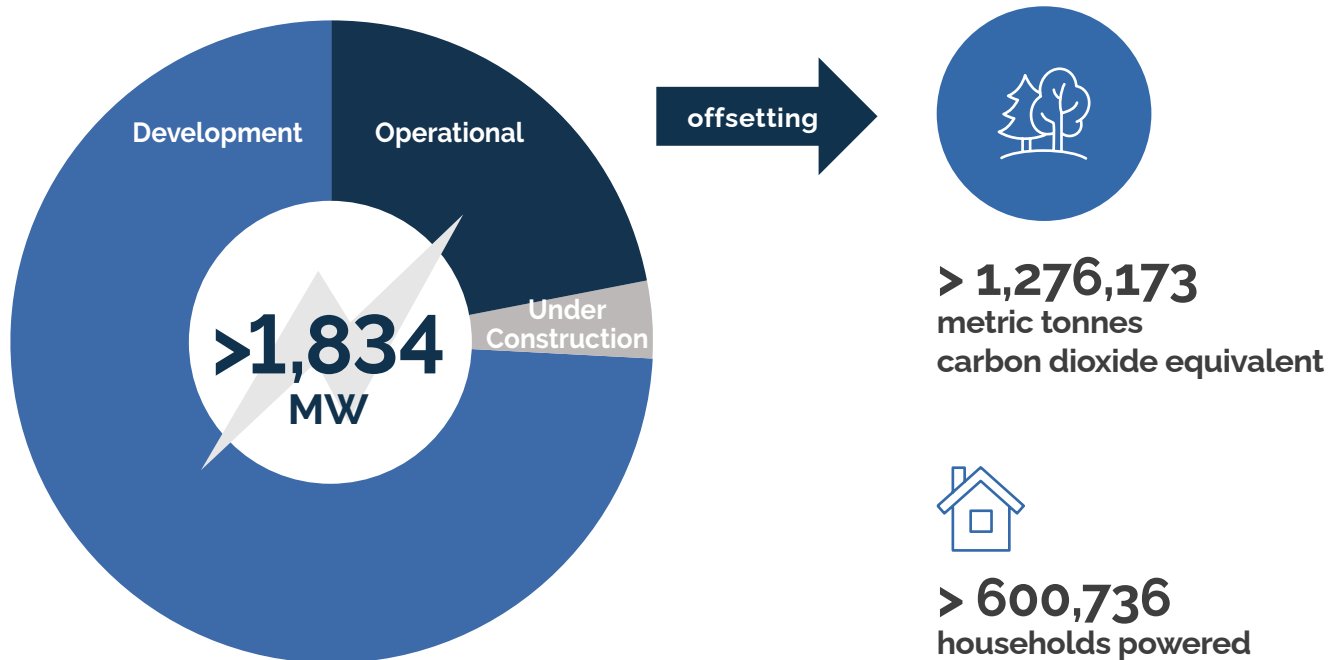
GSSG Solar's Role in Japan's Energy Security

Each of GSSG Solar's funds are actively contributing to the Prime Minister's energy security and the country's renewable energy targets. We have placed over 400 MW of PV into operation and are implementing a new battery energy storage system (BESS) platform that will help ensure that renewable energy is being utilized during peak consumption hours instead of peak production hours.

GSSG Solar remains committed to building a more sustainable future by investing in renewable infrastructure that contributes to Japan's decarbonization goals.

ENVIRONMENTAL IMPACT

Japan Projects



Our Japanese projects, when fully operational, will generate over 1,834* MW of clean electricity annually, enough to power over 600,736 households and offset over 1,276,173 metric tonnes of carbon dioxide. This is the equivalent of 1.9 billion miles driven or 2,022 miles of fully loaded coal train cars offset.

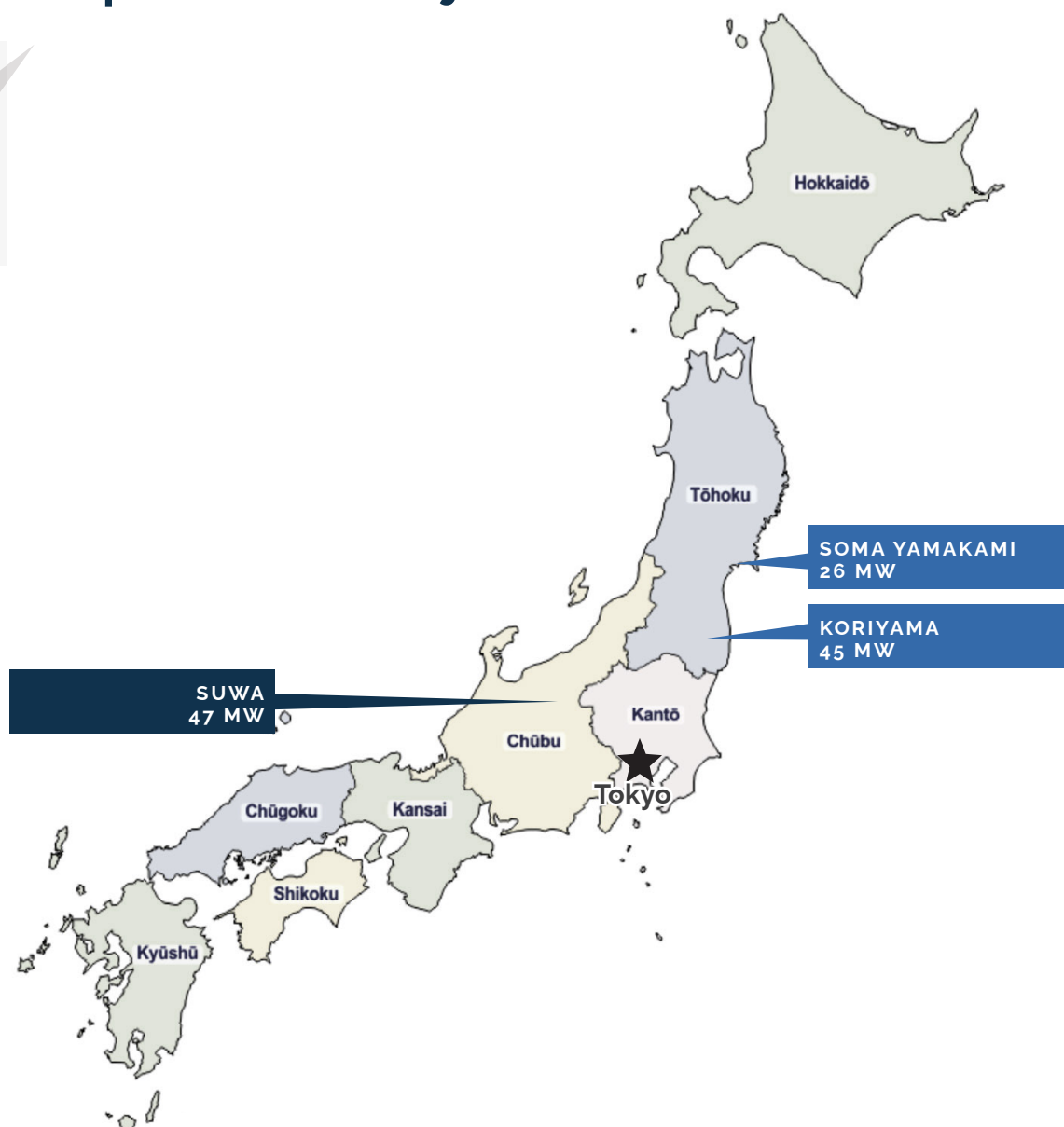
* Includes development assets.

Final numbers will vary based on final production and system sizes.

Assumes four hour duration, one cycle per day, and utilized to shift curtailed solar power.

Fund 1 (Vintage 2014) Investments Introduced Japanese FIT Projects

118
MW

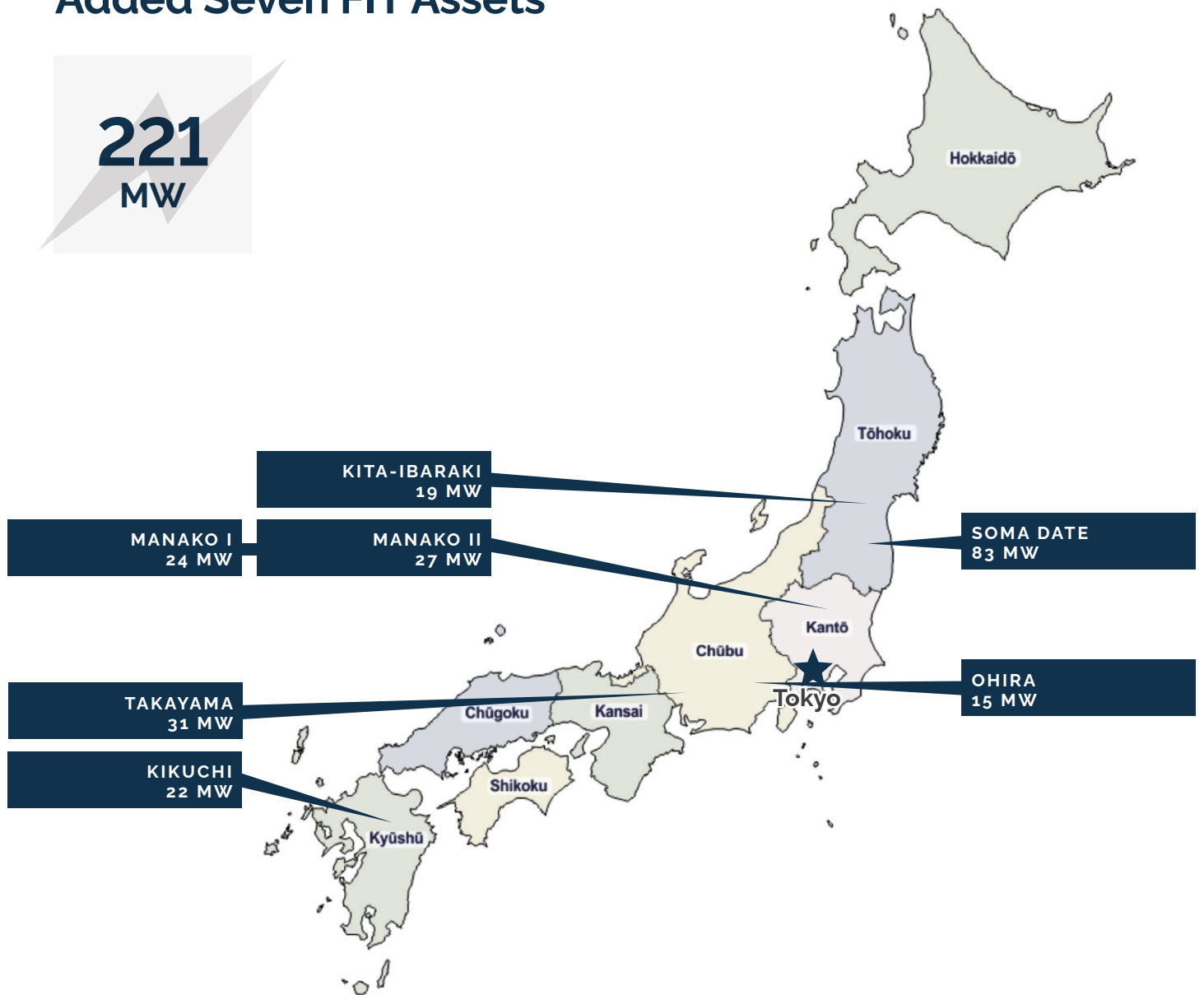


KEY

- Operational
- Under Construction
- Development

Fund II (Vintage 2017) Added Seven FIT Assets

221
MW

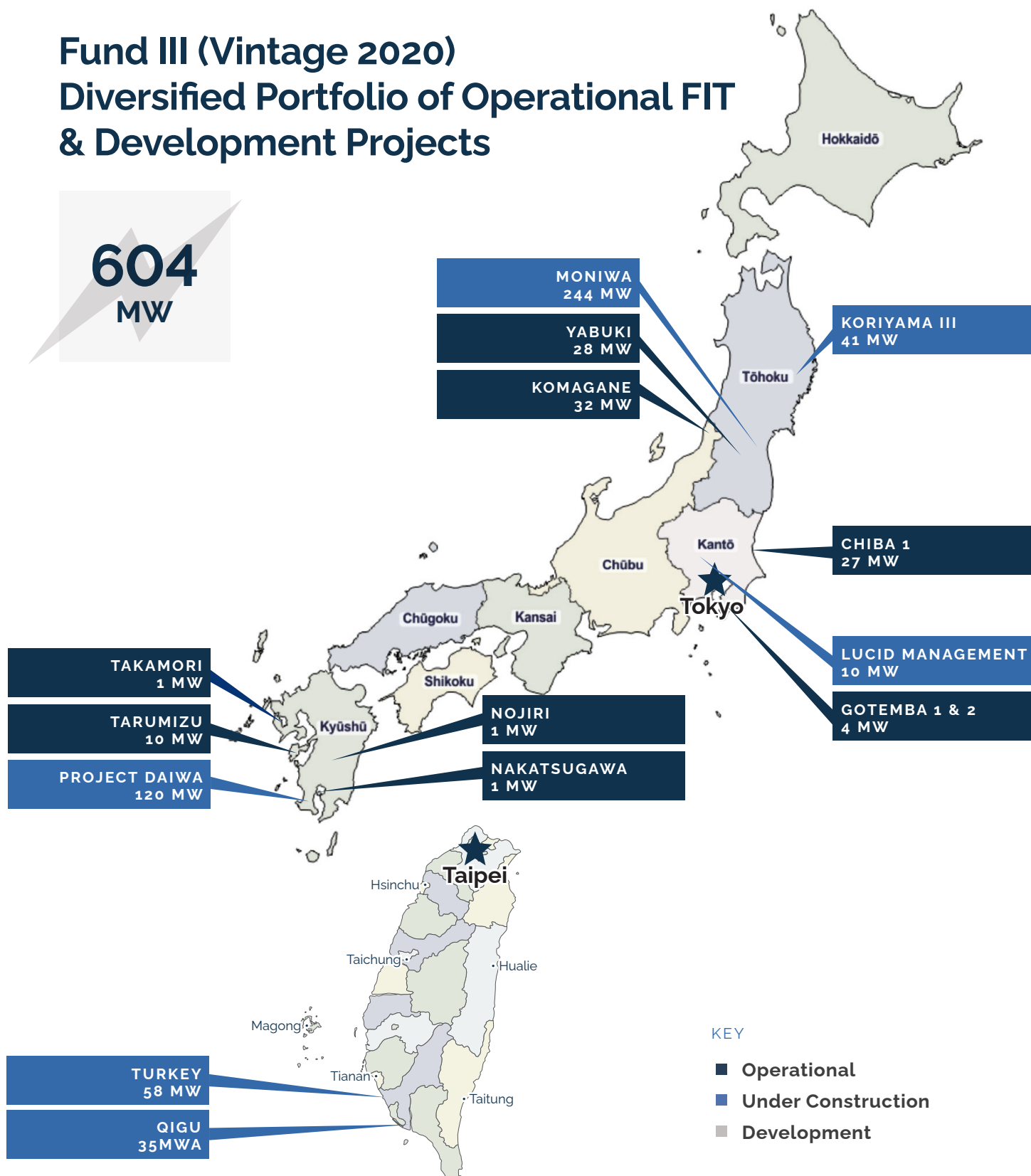


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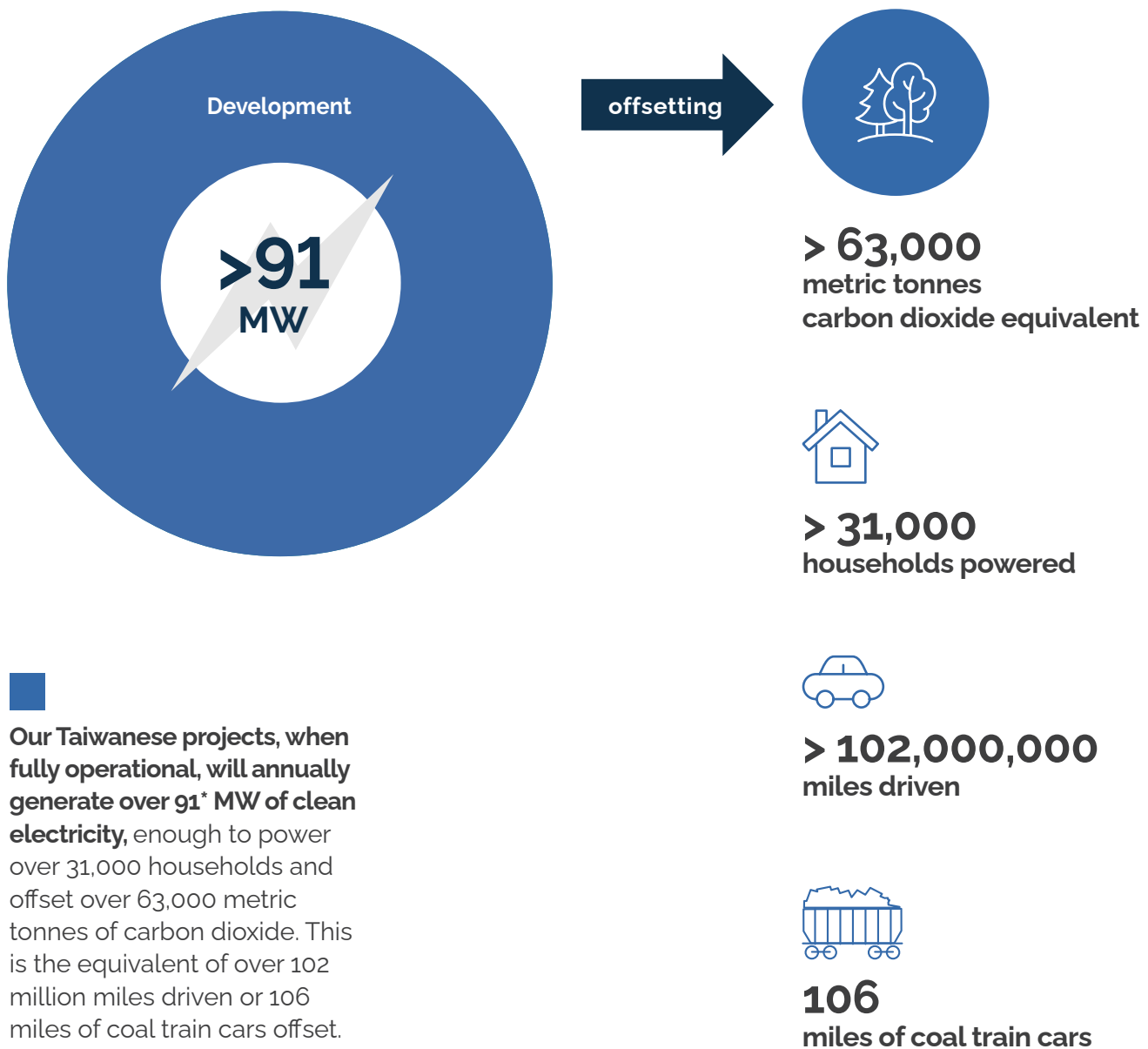
Fund III (Vintage 2020) Diversified Portfolio of Operational FIT & Development Projects

**604
MW**



ENVIRONMENTAL IMPACT

Taiwan Projects

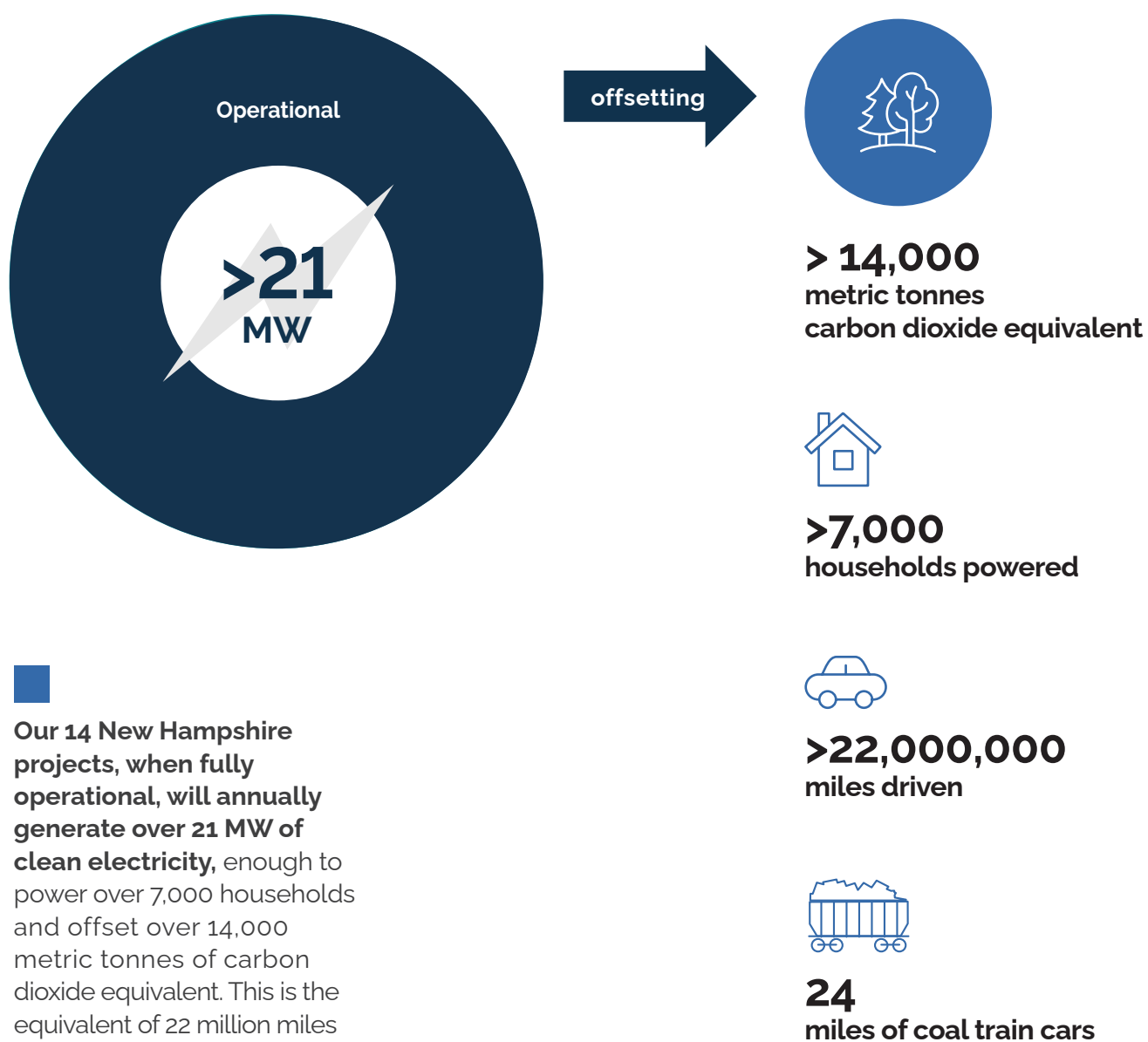


* Includes development assets.

Final numbers will vary based on final production and system sizes.

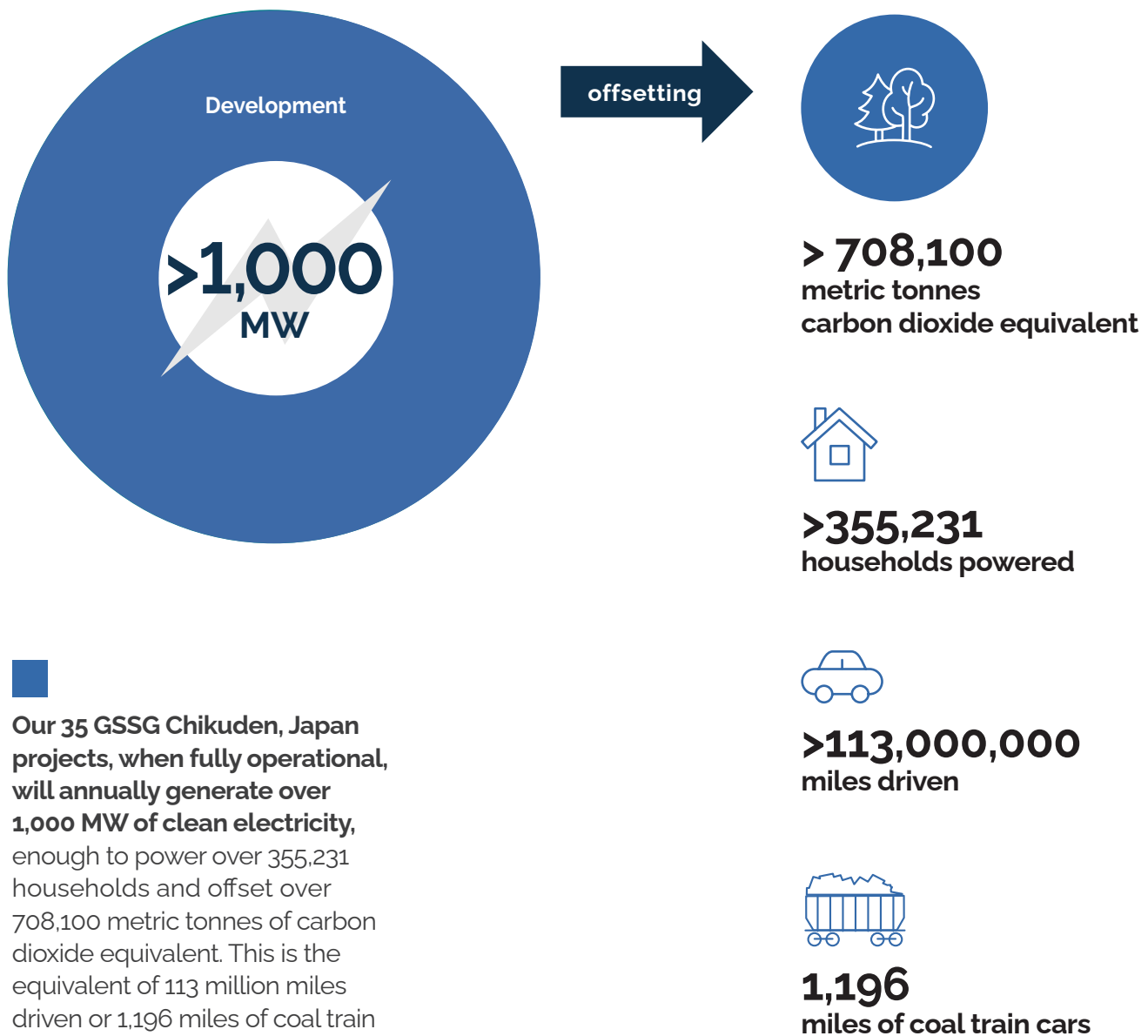
ENVIRONMENTAL IMPACTS

New Hampshire Projects



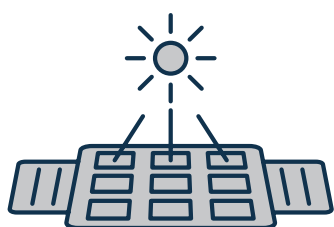
ENVIRONMENTAL IMPACTS

GSSG Chikuden, Japan



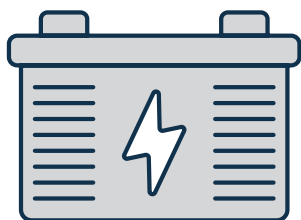
Methodology

To ensure the accuracy of our impact reporting, GSSG only relies on the most credible sources. The two primary statistical sources for this impact report are: Energy Information Agency (EIA) and the International Energy Agency (IEA).



Solar

The calculation of carbon offsets associated with renewable energy assets (i.e., solar PV) is a straightforward calculation that assumes the average carbon intensity of the region where the power is generated multiplied by the modeled production of that asset.



Storage

For storage assets, the calculation is a bit more nuanced as battery storage projects do not generate clean electricity but store electrons generated by other generation resources. Given the trading strategy employed by our BESS portfolio may employ a system of buying energy when its value is low, this should correspond to periods when the energy market is curtailing variable resources and this carbon-free electricity is then injected into the grid later when it can be used. As such, our methodology for BESS carbon reduction is calculated as the product of the unit carbon intensity of Japanese electricity and the total sold kWh from our plants. While this method may need to be revisited as our trading strategy evolves, this seemed like the most prudent approach based on today's fundamentals.

Impact by Fund (tonnes of CO2 offset)

Fund	Total	Operational	Construction	Development
Total	1,276,173	275,611	-	1,000,562
Chikuden	708,100	-	-	708,100
Fund III	350,740	58,278	-	292,462
NH	14,358	14,358	-	-
Fund II	132,300	132,300	-	-
Fund I	70,675	70,675	-	-

Impact by Country (tonnes of CO2 offset)

Country	Total	Operational	Construction	Development
Total	1,276,173	275,611	-	1,000,562
Japan	1,197,477	261,253	-	936,224
Taiwan	64,338	-	-	64,338
USA	14,358	14,358	-	-

Looking Forward

Since its inception, GSSG has raised four investment vehicles (Fund I—2014, Fund II—2017, NH Fund—2018, Fund III—2020 and Chikuden—2025).

We are currently investing from Fund III and GSSG Chikuden with a focus on deploying and developing the assets that have been acquired.

The GSSG Solar team of 40 professionals looks forward to continuing our global environmental impact.

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Through these projects and our additions, we look forward to continued success for our investors, local communities, and the environment.

SOMA DATE, 82 MW





TAKAYAMA, JAPAN, 31 MW



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