



# Confidently Partner on Renewable Project Investments Using REmap

## How Hannon Armstrong Uses REmap to Evaluate and Price Investments More Effectively



**Location:** Annapolis, MD

**Industry:** Clean Energy Investment

**Solution Used:** REmap

**We use REmap in every deal because we trust it to help us to understand real world performance and to determine the appropriate value of an investment.**

*- Rich Santoroski, Chief Risk Officer, Hannon Armstrong*

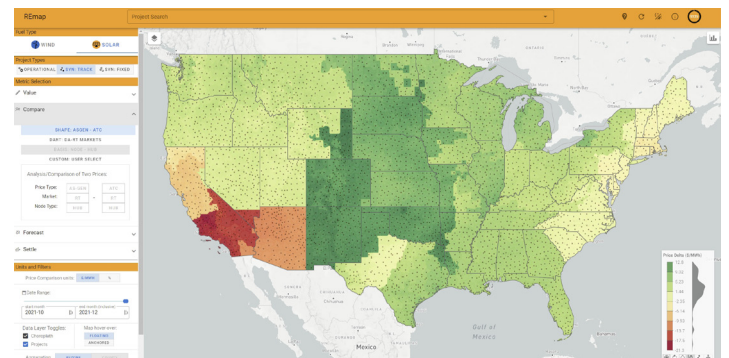
**We sat down with Rich Santoroski, Chief Risk Officer, and Raj Singamsetti, Market & Regulatory Lead of the climate investment firm Hannon Armstrong, to talk about how they use REmap to conduct investments in renewable projects.**

With more than \$8 billion in managed assets, [Hannon Armstrong's](#) (NYSE: HASI) core purpose is to make climate positive investments with superior risk-adjusted returns. The company's vision is that every investment should improve its climate future, which is why they require that all prospective investments are neutral to negative on incremental carbon emissions or have some other tangible environmental benefit, such as reducing water consumption.

### Validating client assumptions

Every investment starts with receiving a financial model from the client, the group seeking an investment in the project from Hannon Armstrong. The first thing they do is analyze the model assumptions. The model details and content may differ but generally include the 30-year

revenue outlook, tax equity arrangements, and include values from independent engineering reports. "We are looking through all of this information and identifying any assumptions they used to represent value—what are their production estimates, what have they assumed for basis, how did they capture production-weighted value. The goal is to develop the Pricing Case—the preliminary price we think we can invest in the portfolio—and to start by understanding what the client thinks is reasonable," said Rich. "That's where REmap comes in."

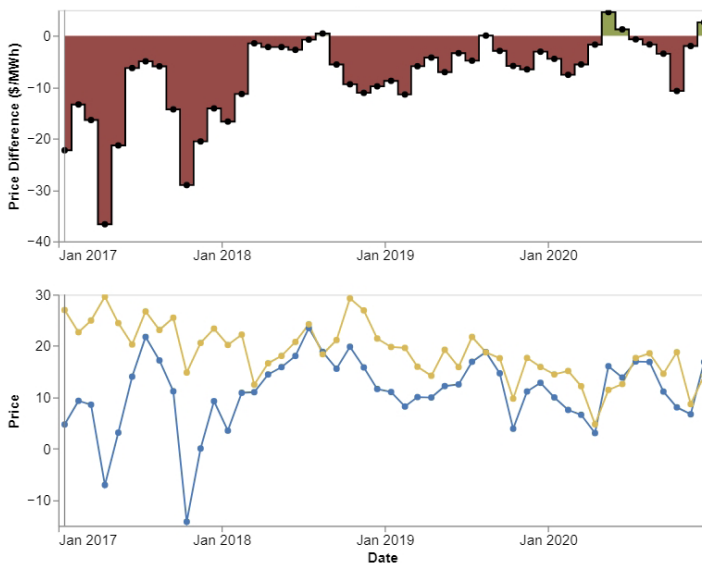


*REmap uses concurrent hourly energy and price at every location analyzed, so that no matter where a project is located, customers can count on high quality, generation weighted value.*

## Determine what is reasonable

"We start using REmap right away in our review process, typically as we start to dig into the client's independent engineering reports," said Rich. These reports come with both historical and forecasted data and are the source for many values such as basis and production weighting in the client's model. "The first thing we'll look for is how aligned their historical and forecasted values are," Rich continued. "If they forecast that a production-weighted value changes dramatically from 2021 into 2022, why is that? In a lot of cases it might be because they're relying on an 8760 for production weighting in their forecast, in which case we'll want to capture this and raise it for discussion later."

### Historical Basis



*Customers can see average basis performance at the map level if they want to compare across projects or regions or explore the monthly and hourly detail of specific projects to investigate trends or events.*

The historical, concurrent hourly price and energy data in REmap made it clear for Hannon how much an assumed generation profile like an 8760 can impact valuation, or, more specifically, overstate value. "As a result, we'll often point to this historical data in discussions with the client as a rationale for our preliminary investment price," said Rich.

## Discussions with the client

"After studying the assumptions, we'll move on to using REmap to inform our discussions with the client and their consultants. Our goal in these discussions is to understand their rationale and to see if we agree," said Raj. These discussions will occur over a series of phone

**We've been in calls with clients and their consultants where we'll bring up REmap in real-time to validate something they've said.**

*- Rich Santoroski,  
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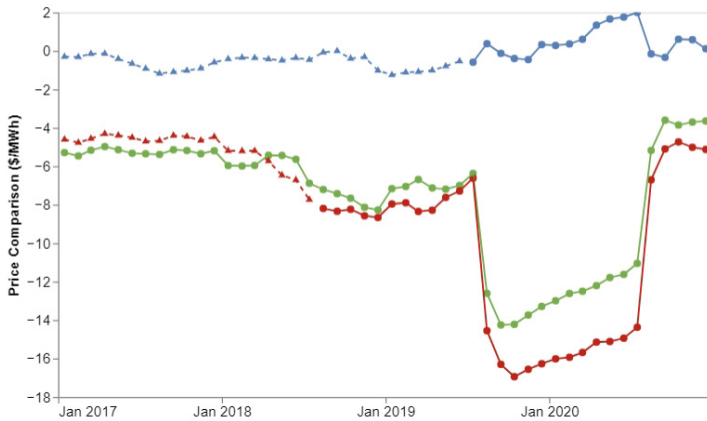
calls with the client and the relevant consultant or independent engineer. In those conversations, Hannon will ask questions about the engineering analysis and any gaps between their historical and forecasted values. "Basis is another market assumption that gets a lot of attention in these meetings," continued Raj. "If we're dealing with an in-development project then we'll use REmap to not only look at nearby projects to see what the range in potential basis risk could be, but also to see how it's behaved more recently." Project development is a lengthy process, which means there can be gaps separating when Hannon sees an investment and when the engineering reports were commissioned. Having access to more recent data helps them see if the expectations in the reports still hold. "We've had situations where we brought up REmap during these calls in order to validate or refute numbers presented by a consultant," said Rich.

"Obviously these are long-term investments we're making in markets that are evolving, so there's uncertainty inherent in the assumptions we're discussing," said Rich. "We may not reconcile all of the differences with the client, which is fine, but it's critical that we enter into these investments with our eyes open, and REmap is a big part of that."

## Build the internal Booking Case

"After collaborating on assumptions with our client, we'll offer a preliminary price for an investment we're willing to make, and assuming they show interest, we'll move onto a second phase where we build our internal model, also known as the Booking Case," said Rich. "Here we'll do another round of due diligence, possibly bring in our own independent consultants, then build a valuation model with our own underwriting assumptions which we think

reflect the most realistic value of the portfolio. We're trying to answer if, after updating the model with these assumptions, the return is adequate for our investors and if any adjustments need to be made to the preliminary price."



REmap supports quick comparisons of projects across every metric, so customers can evaluate the variability in an area, or show stakeholders how alike or dissimilar their project may be to its peers.

"Our interval valuation process has evolved quite a bit since we started using REmap, particularly how we think about production weighting," continued Rich. "We may not reach a consensus with the client in the first phase, but in underwriting we'll always use the assumptions we think are most accurate. We use REmap to inform the production-weighting values in our underwriting because it captures a rich account of historical and local variability. We can see how trends behaved across neighboring projects, if projects perform differently during events, and factor this into our expectations of value. REmap has also made it easier to explain our underwriting assumptions to stakeholders because of the simplicity in its charts and ease of use."

**"The data in REmap has helped us improve our internal valuation process."**

- Rich Santoroski,  
Chief Risk Officer, Hannon Armstrong

## Investing with confidence

"The investment landscape is evolving and we're seeing more deal structures leaning towards common equity as opposed to preferred, which elevates the importance of being thoughtful in how we invest our capital and understand risks," said Rich. "REmap has helped us handle this evolution in stride by elevating our due diligence, giving us quick access to information that we can call upon in real-time during key meetings with stakeholders, and improving the way we underwrite."

## About RESurety

RESurety is the leading analytics company empowering the clean energy economy. Operating at the intersection of weather, power markets, and financial modeling, RESurety enables the industry's key decision makers with best-in-class value and risk intelligence, and the tools to act on it.

# Contact us

To learn more about REmap and to schedule a demo visit [resurety.com/remap](https://resurety.com/remap) or email us at [remap@resurety.com](mailto:remap@resurety.com)

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