



# Rethinking the Impact of Renewable Energy Certificates

## Developer Perspectives

### Webinar Summary

May 5, 2026

On April 2, 2026, CRS hosted a webinar exploring a central question in clean energy markets: Do voluntary renewable energy certificates (RECs) meaningfully drive new renewable energy development? The discussion brought together academic research and real-world developer experience to challenge simplified narratives and highlight a more nuanced reality. It was moderated by Todd Jones, with Center for Resource Solutions, and featured Dr. Eric O’Shaughnessy, with Clean Kilowatts, and Tom Starrs, with EDP Renewables North America.

### Moving Beyond a Binary View of Impact

Much of the existing academic literature evaluates REC impact at the level of individual projects and asks whether a purchase directly causes a new project to be built. This has led to a binary framing of impact: you either do bring a new project online unilaterally with your purchase or you’ve essentially done nothing. As a result, a position that voluntary RECs—especially low-priced or unbundled RECs—have no impact has become pervasive.



This binary drew the attention of Dr. O’Shaughnessy to investigate further—both the underlying research and the fundamental question of voluntary REC market impact. He argued in the webinar that this framing of impact is overly simplistic and neither accurately reflects the conclusions of existing academic research nor recognizes the meaningful impact of aggregated REC demand on renewable energy development.

## RECs Are Revenue

Across researcher and practitioner perspectives on the webinar, one point was unequivocal: RECs are a real revenue stream, and revenue drives development. Dr. O’Shaughnessy explained:

**“Developers are for-profit companies that seek more revenue streams, and additional revenue streams will result in additional development. That does not mean we’re mapping RECs to new projects on a one-to-one basis, nor is it to say that RECs are saving the world. But it is to say that RECs do have a meaningful role to play in development and by extension so do REC buyers.”**

This framing moves the conversation away from expectations that one REC purchase equals one new project, for example, and toward a more accurate understanding of the incremental and system-level impact of aggregated demand.

From the developer side, Tom Starrs reinforced how central REC revenue is in practice:

**“Producing and selling RECs is a significant part of our business within EDP Renewables. That’s fundamentally**

**our job. Along with producing energy, capturing the value associated with RECs is what helps us be a profitable business and enables us to continue prospering and continuing to develop.”**

In a low-margin, capital-intensive industry, even modest revenue streams matter. RECs are not incidental—they are part of the financial foundation that supports ongoing project development.

## Rethinking “Low Prices” and Market Impact

A common critique is that REC prices—particularly in voluntary or unbundled markets—are too low to influence investment decisions. The discussion challenged this assumption.

In a competitive market where “every dollar counts,” developers reject the idea that any



# Key Takeaways

1. RECs materially impact development as part of the revenue stack that enables projects to move forward.
2. Prices are not too low to matter. Even low-priced RECs contribute to project economics in a low-margin industry.
3. Unbundled and merchant RECs still matter. While long-term contracts (bundled or unbundled) that provide revenue certainty are the strongest driver of project-level impact, merchant RECs provide real revenue and remain part of the financial ecosystem driving development.
4. Market dynamics are complex. Voluntary and compliance markets interact in complicated ways to affect project development.
5. Existing research does not support broad generalizations about impact. The underlying evidence related to REC impact is nuanced and often mischaracterized.
6. Developer perspectives are essential. Real-world decision-makers consistently affirm that RECs play a meaningful role.

positive revenue is irrelevant. Even relatively low-priced RECs contribute value. And transaction costs—sometimes cited as offsetting REC value—were found to be modest (roughly 5–15%) and not a determining factor in most cases. Mr. Starrs explained:

**“Any price above zero creates an economic opportunity for us as long as there are not significant transaction costs, and I said earlier that I think the transaction costs are basically nil in this context.”**

Both Dr. O’Shaughnessy and Mr. Starrs emphasized that REC prices are market signals (outputs), not levers (inputs) that can be adjusted to create impact.

Overall, while there may be rare conditions where prices are too low to matter, there is no evidence that this is the norm.

## REC Structure, Market Type, and What Actually Matters

Another common narrative is that only certain types of RECs—typically bundled or high-priced RECs—are meaningful, while unbundled or merchant RECs are not. The discussion challenged this distinction as overly simplistic.

Instead, speakers emphasized that the most important factor for individual projects is not whether RECs are



bundled or unbundled, but the degree of revenue certainty they provide.

Project development hinges on having a stable future revenue stream. Long-term contracts—whether bundled or unbundled—provide predictable revenue that supports financing and reduces risk. Merchant REC markets and short-term transactions provide less certainty and are therefore typically discounted by investors on individual projects.

However, this does not mean that unbundled or merchant RECs are irrelevant. All REC revenue flows into the same financial ecosystem that supports development, even if their role differs from long-term contracted revenue streams. Even when merchant or short-term REC sales are less influential for financing a specific new project, they still:

- Generate real revenue for developers
- Support overall project economics and broader market liquidity

- Contribute to market demand and price signals

This reinforces a key theme of the discussion: impact is not binary—it exists along a continuum shaped by contract structure, timing, and market conditions, with revenue certainty playing the central role in determining project-level influence.

## The Role of Voluntary Markets

Dr. O’Shaughnessy and Mr. Starrs emphasized the importance of voluntary REC markets, noting that voluntary buyers—especially corporate buyers—represent a significant share of overall demand. These buyers often pursue emissions reductions and sustainability goals, contributing to overall market expansion. This demand is somewhat unique and not easily substituted. The interplay between voluntary and compliance demand also drives new development. For example, voluntary purchases can tighten

supply in compliance markets, supporting prices and development incentives.

## Limits of Existing Research Approaches

A key theme of the webinar was the gap between academic modeling and developer experience, and a central contribution of the discussion was its examination of existing research methods used to evaluate REC impact.

Most prior studies rely on:

- Project-level financial modeling
- Capacity expansion models of the grid
- Limited econometric analysis

Approaches that focus narrowly on project-level financial modeling or strict additionality can miss broader market dynamics—particularly the cumulative and marginal effects of voluntary demand across the system. Financial modeling, along with other capacity expansion models, while valuable tools, can produce conditional results that are sensitive to assumptions and may not capture real-world complexity. And the impact of certain REC markets, particularly voluntary merchant REC markets, can be difficult to isolate and test empirically. So, econometric and other quantitative analysis may not be best suited to answer this question. Importantly, claims that RECs “do nothing” are not supported by any of the underlying research, which is conditional and context-dependent.

By contrast, Dr. O’Shaughnessy’s recent work elevates developer and investor perspectives as critical evidence—grounding the analysis in how their decisions are made:

**“I’ve been working with developers because I think they are the most authoritative source and we should be listening to them if they are telling us that RECs matter.”**

This shift in perspective is critical. Developers are making real decisions, and their consistent message is that RECs play a meaningful role in those decisions.

## Market Design and Policy Implications

As REC markets evolve, new proposals—such as hourly matching and tighter geographic constraints—are gaining attention. However, this discussion highlighted the distinction between accounting preferences and deployment impact. While stricter rules may seek to improve market signals or credibility, their effect on actual project development remains uncertain. Dr. O’Shaughnessy explained:

**“No developer in history has built a project because someone said that they would use the power. Developers build projects to make money.”**

In this context, the speakers also emphasized that maintaining trust—through certification, avoiding double counting, and ensuring transparency—is essential for long-term market viability.

## Conclusion

The webinar makes clear that the question is not whether RECs “work.” They do. RECs are a meaningful source of revenue that contributes to renewable energy development, and developers consistently account for that value in real-world investment decisions.

What is less useful is the tendency to frame when and how they matter in overly simplistic, binary terms. Evaluating impact solely based on whether a single transaction directly causes a new project to be built obscures how markets function. Renewable energy development is driven by a stack of revenues, risks, and expectations, and RECs are one part of that system.

A more complete understanding is that the impact of RECs is incremental, context-dependent, and shaped by market dynamics and factors like revenue certainty. Recognizing this allows policymakers, buyers, and market participants to move beyond unproductive debates and avoid unintended consequences of restricting broad categories of REC transactions. It shifts the focus instead to how voluntary demand, market design, and procurement practices can most effectively support continued renewable energy deployment. •

## REFERENCED READING MATERIALS

*Developer Insights on Financial Modeling to Describe Renewable Energy Certificate Impacts*. Center for Resource Solutions, Feb. 5, 2026, [resource-solutions.org/document/developer-insights-on-financial-modeling-to-describe-rec-impacts/](https://resource-solutions.org/document/developer-insights-on-financial-modeling-to-describe-rec-impacts/).

*A More Comprehensive View of the Impacts of Voluntary Demand for Renewable Energy*, O'Shaughnessy, E. (September 11, 2024). Available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4953515](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4953515)