



**John Geraghty**  
Managing Director  
MARSHALL &  
STEVENS, INC.

# Renewable Energy Project Valuation

October 13 - 14, 2021 | Digital Access

## Day 1 – Wednesday, October 13, 2021

8:40-8:50 am PT      Opening Remarks

8:50-9:20 am      Session 1: **What’s New: Impacts on Project Valuation**

*This session will provide an update on issues that are in play, and their impacts on project risks, finance and M&A markets.*

- Impacts of overall economic conditions on off-taker risk appetite and power prices
- Current market conditions and recent project pricing trends
- M&A activity--to date and projected for various types of renewable projects
- Financier sentiment
- Evolving investor classes and risk appetites
- How each of these is affecting project value and bankability

**Keith Martin**, *Partner*, NORTON ROSE FULBRIGHT US LLP

9:20-9:35 am      Q&A

9:35-9:40 am      *Break*

9:40-10:35 am      Session 2: **Perspectives on Long-term Project Value in a Changing Renewable Energy Market**

*The past year has seen major events impact the renewable energy industry. Ranging from extreme weather to the potential long-term societal impacts of the pandemic, these recent events are changing how market players are assessing the value of projects not only in the short term, but potentially their strategic thinking regarding the real value of projects as well. This panel of financial advisers, investors and long-term asset owners will discuss how some recent events may create long-term changes in project valuation, including:*

- Fallout of the Texas freeze: how does this affect the value of projects with uncontracted revenue streams, hedge deals and lack of weatherization?
- Impacts of the pandemic: will commodity price, construction and transportation cost increases persist?
- Potential impacts of the Infrastructure bill
- Growth of solar and expansion of the duck curve beyond California: will assets with co-located storage gain in value?

- Rethinking risk: how are investors' and asset operators' strategic priorities changing?
- Are new investors entering the market?
- What do investors want to see in an independent third-party valuation?

Moderator:

**Ralph Consola**, *Principal*, MARSHALL & STEVENS, INC.

Panelists:

**Sybil M. Cioffi**, *Managing Director*, DUKE ENERGY RENEWABLES LLC

**John Eliason**, *Global Co-Head of Energy Project Finance*, GREENBERG TRAURIG LLP

**David Kaltsas**, *Chief Operating Officer*, GAF ENERGY

**Adam Kuhne**, *Chief Investment Officer*, SUMMIT RIDGE ENERGY

10:35 -10:50 am

Q&A

10:50-10:55 am

Break

10:55-11:40 am

**Session 3: Valuations for Renewable Project Finance: Understanding Market and Cost-based Approaches**

*To develop Fair Market Valuations (FMV) for renewable energy generation projects, multiple approaches are typically applied. Two of the three common approaches to value are the Market Approach and the Cost Approach. This session will present the advantages, disadvantages, limitations and critical factors in applying these approaches to renewable energy assets.*

- Market Approach – using market comparables to determine Fair Market Value (FMV)
  - What the Market Approach is and how should it be applied?
  - What is comparable? Data challenges
- Cost Approach for valuing new renewable assets
  - Cost buildup: What should be included in a project cost model?
    - Detail versus grouping
    - Developer profit versus developer costs incurred
  - Checking costs provided against market sources
    - What sources are available?
    - How do we account for sponsor internal costs?
    - EPC Profit – internal vs. third party
    - Sponsor Profits & profits paid to prior/earlier stage developers
- Example: Applying the Cost Approach to a project in ERCOT
  - Comparing build costs to other installations
  - Creating a basis for comparison and analyzing comparables

**Jim Nutter**, *ASA, Managing Director*, MARSHALL & STEVENS, INC.

11:40-11:55 am

Q&A

11:55 am-12:30 pm	<i>Lunch Break</i>
12:30-1:10 pm	<p><b>Session 4: Cost Segregation and IRC 1060 Analysis for Asset Acquisitions, Tax Equity and Other Incentive Programs</b></p> <p><i>Cost segregation plays a vital role in tax equity transactions. A systematic approach must be taken to properly allocate project costs to avoid changes in depreciation rates by co-mingling short- and long-term costs. This session will look at the differing cost recovery periods for wind and solar assets based on ITC/PTC requirements, and how these should be handled in valuations.</i></p> <ul style="list-style-type: none"> <li>• Treasury and IRS Guidance</li> <li>• Residual Method and IRC 1060</li> <li>• Project Costs vs. Project Company costs</li> <li>• Direct costs</li> <li>• Indirect costs</li> <li>• Intangible assets</li> <li>• Non-value-added costs</li> <li>• Cost Segregation Example: Solar + Storage project in CAISO <ul style="list-style-type: none"> <li>○ Classifying direct vs indirect costs</li> <li>○ Determining ITC eligible vs ineligible costs</li> <li>○ Incorporating lifespan factors in the cost segregation</li> <li>○ Considering federal tax incentives for batteries</li> </ul> </li> </ul> <p><b>Jim Nutter, ASA, Managing Director, MARSHALL &amp; STEVENS, INC.</b></p>
1:10-1:25 pm	<i>Q&amp;A</i>
1:25-1:30 pm	<i>Break</i>
1:30-2:15 pm	<p><b>Session 5: An Update on Recent Legal Developments Affecting Valuations: An Attorney's Viewpoint</b></p> <p><i>The valuation of renewable energy projects is complex, and can be a source of tension between regulators, developers and debt and equity investors. This session will address the some of the applicable caselaw and how these decisions have impacted the requirements for valuations – rules, guidance and expectations.</i></p> <p><b>Laura Ellen Jones, Partner, HUNTON ANDREWS KURTH</b></p>
2:15-2:30 pm	<i>Q&amp;A</i>
2:30 pm	<i>End of Day One</i>

**Day 2 – Thursday, October 14, 2021**

8:30-9:20 am PT	<p><b>Session 6: The Income Approach: Valuation of Renewable Projects Based on Contracted and Merchant Revenue Flows</b></p> <p><i>The Income Approach is the third commonly accepted approach to value, and is key to the valuation of integrated renewable energy assets. Will my project</i></p>
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*generate enough profit to make it worth my time and investment? Do I expect to earn a reasonable return for my cost incurred to develop the project? How will an extended merchant tail affect project profitability? This session will take a deep dive into its usage to determine the FMV of a project.*

- Factors that explain Income vs Cost spreads
- Sources of Merchant Curve projections
- Income Approach document due diligence
- Income Approach modeling
- Economic Useful Life
- Contracted versus uncontracted revenue streams
- Sources of yield beyond energy sales

**John Geraghty**, *Managing Director*, MARSHALL & STEVENS, INC.

9:20-9:35 am

Q&A

9:35-9:40 am

Break

9:40-10:30 am

**Session 7: Incorporating Project Risks in Renewable Energy Project Valuations**

*Each project has its own challenges that a developer/sponsor must overcome in order to complete the project and start generating revenue. Increased risk does not always deliver an increased return on investment.*

*\*Our presenter has spent time during his career on every side of project development: financing source, construction, sponsor and now independent valuation.*

*This session will explore how risks can be incorporated in valuations, including:*

- The Essence of Project Finance
- Early to Mid-Stage Development: Factoring project deliverables into valuations
- Enter the Late-Stage Developer
  - Identifying potential late-stage risks
  - The EPC agreement as a hedge

**John Geraghty**, *Managing Director*, MARSHALL & STEVENS, INC.

10:30-10:45 am

Q&A

10:45-10:50 am

Break

10:50-11:45 am

**Session 8: What Developers Should Do to Avoid Potential Appraisal Pitfalls and Maximize Values**

*An often-underappreciated aspect of renewable energy valuations is the degree that they can be affected by actions taken in the development phase. This session will discuss what developers can do to avoid costly mistakes that can adversely affect project valuations later and impact financeability.*

- Fine Tuning Your Project's Third Party Valuation
- The Impact of Your Income Approach falling Short of the Cost Approach

- The Value of Contracted Revenues in a Market of Declining PPA Terms
- The Realities of Net Cash Flow in a Market Solving for Yield
- Case Study in Yield vs Nominal Cash Flows

**John Geraghty**, *Director*, MARSHALL & STEVENS, INC.

11:45-12:00 pm

Q&A

12:00-12:30 pm

*Lunch Break*

12:30-1:05 pm

**Session 9: Reconciling the Results of Multiple Valuations and Valuation Methods**

*The application of each of the three primary approaches to value (Cost, Market and Income) often generate different results. In the valuation of pre-revenue renewable energy projects, key revenue and expense assumptions, such as non-contracted revenue, dramatically affect the income approach to value. This session will explore the reconciliation of multiple valuation methods in order to develop a reasonable opinion of value for a project.*

- Meeting IRS, USPAP, ASA and other requirements
- Guidelines to reconciling Market, Cost & Income valuations – our opinion and market opinions
- What to do when each approach provides dramatically different results?
- Common reconciliation issues in the valuation of renewable projects
- How are investors valuing projects with long-date CODs, such as CODs in 2024 and 2025 since there is no market comps for such projects?
- How do we view Developer Profit for projects?
- How do we access the forward curve other than say via an engineering/economic firm's projection?
- What bulge-bracket investors are looking for in a valuation
- Beyond delivering a good analysis: telling the story of the project in the report
- Examples and exercises of reconciling multiple valuations to determine Fair Market Value (FMV) under a variety of scenarios

**Ralph Consola**, *Principal*, MARSHALL & STEVENS, INC.

1:05-1:20 pm

Q&A

1:20-1:25 pm

*Break*

1:25-2:05 pm

**Session 10: Project Valuation for Other Purposes**

*Financial Reporting, Tax Reporting, Investor Reporting, etc. require a valuation of renewable energy projects that may differ from project finance valuations. We will discuss:*

- Valuation of operating projects
- Fund Valuation/Investor Reporting – valuation of invested equity
- Allocation of Purchase Price – compliance with FASB ASC 805

- Example: Repowering of a wind energy generation project
- Fairness Opinions

**Ralph Consola, Principal, MARSHALL & STEVENS, INC.**

2:05-2:20 pm

Q&A

2:20-2:30 pm

Break

2:30-3:15 pm

Session 11: **Office Hours: Interactive Live Zoom Session**

*This Interactive Live Zoom Session at the class conclusion allows you to get your most pressing questions answered, and to interact with Master Class Instructors in real time.*

**Ralph Consola, Principal, MARSHALL & STEVENS, INC.**

**John Geraghty, Director, MARSHALL & STEVENS, INC.**

**Jim Nutter, ASA, Managing Director, MARSHALL & STEVENS, INC.**

3:15-3:20 pm

Closing Remarks

3:20 pm

Master Class Adjourns