



Lloyd MacNeil
Partner
MCDERMOTT,
WILL & EMERY LLP

Repowering Wind Projects

August 3 - 4, 2021 | Digital Access

TUESDAY, AUGUST 3, 2021

**Pacific Time*

8:15-8:30 PDT *Introduction and Opening Remarks*

Lloyd MacNeil, *Partner*, MCDERMOTT, WILL & EMERY

Ed Zaelke, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY

8:30-9:15 Session 1: **Wind Repower Market- Current Trends**

Wind project repowering – the updating or replacement of aging wind turbines or components with current technologies – is an expanding market for developers, investors and equipment manufacturers. NREL and BNEF both estimate significant long-term market growth in the sector. This opening session will provide an overview of the wind repower market, including:

- Trends, news and current market updates
- Recent legislative changes and IRS guidance
- Outlook for the repower market

Lloyd MacNeil, *Partner*, MCDERMOTT, WILL & EMERY

Ed Zaelke, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY

9:15-9:30 *Live Q&A*

9:30-9:40 *Break*

9:40-10:25 Session 2: **Key Inputs for Making the Repower Decision**

At what stage in a project’s life cycle does repowering become viable? Learn about initial diligence issues that need to be addressed when considering repowering a wind project or buying a project with a view toward repowering.

- Full vs. partial repower
- Benefits of repowering
- Project economics
- Site suitability
- Logistics and transportation of equipment
- Viability of existing project assets

Eric Barnhart, *Vice President, Corporate Development*, LONGROAD ENERGY

Lloyd MacNeil, *Partner*, MCDERMOTT, WILL & EMERY

10:25-10:40 *Live Q&A*

10:40-10:50 *Break*

- 10:50-11:25 **Session 3: Financial Modeling for Repower Projects**
In this session we will analyze key financial and economic drivers for a developer with an aging wind project who is considering repowering.
- Full vs. Partial Repowering
 - Energy revenue and RECs
 - Tax credit extensions, qualification, and expiration
 - Estimating cash flows
 - Assessment of existing balance of plant and equipment
 - Improvements to O&M costs
 - Improvements in turbine performance and reliability
- Gary Durden**, *Managing Director*, COHNREZNICK CAPITAL
Carl J. Fleming, *Partner*, MCDERMOTT, WILL & EMERY
Alex Lowe, *Vice President*, GE CAPITAL
- 11:25-11:40 *Live Q&A*
- 11:40-12:10 *Lunch*
- 12:10-12:50 **Session 4: M&A Issues for Repower Projects**
Operating wind projects are changing hands at an increasing rate. What are the considerations for a purchaser of aging project seeking to extend its useful life through repowering? What can a buyer do to make its portfolio more attractive?
- How marketable are turbines from OEM's no longer in business?
 - Full repower vs. partial repower
 - Are full tear-downs worth the effort?
- Brad Seaman**, *Vice President, M&A*, SCOUT CLEAN ENERGY
Ed Zaelke, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY
- 12:50-1:05 *Live Q&A*
- 1:05-1:15 *Break*
- 1:15-2:05 **Session 5: Contracting for Repowering Projects**
Beyond the procurement contracts for the new repowering equipment, there are a number of contractual relationships that need to be resolved for a successful repowering. We will discuss several during this session, including the PPAs and other revenue agreements, interconnection, O&M, principal real estate documents, as well as ancillary agreements like PILOT arrangements and tax abatement agreements.
- Operating agreement review
 - O&M
 - PPA
 - Interconnection
 - Leases
 - Contracting for new vs. existing equipment
 - Ensuring that key provisions of development contracts work together
 - Preparing the contracts for a successful financing
- Eric Barnhart**, *Vice President, Corporate Development*, LONGROAD ENERGY
Lloyd MacNeil, *Partner*, MCDERMOTT, WILL & EMERY

- 2:05-2:20 *Live Q&A*
- 2:20-2:30 *Break*
- 2:30 – 3:15 **Session 6: Optimizing Tax Benefits for Wind Repower Projects**
Optimization of existing tax benefits is as important for repowerings as for greenfield developments. Repowering brings PTC qualification (safe harbor/physical work) and the 80/20 test into focus. In addition, PTC extension is a major driver of the economics of a repower project. In this session, we will explore the implications and considerations for the PTC in the current tax regime – including recent amendments and extensions in late 2020 and the IRS guidance to extend completion dates for projects on Federal lands.
- PTC/ITC timelines
 - IRS guidelines for combining new and used equipment
 - Understanding the application of the 80/20 test and what costs can be included in the 80/20 test particularly if Tax Equity financing is contemplated for the project repowering
 - Latest on Safe Harbor Strategies
- Heather Cooper**, *Partner*, MCDERMOTT, WILL & EMERY
Phil Tingle, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY
James R. Stahle, *Senior Managing Director, Partner, and Founding Member*, CCA CAPITAL
- 3:15-3:30 *Live Q&A/Day 1 Wrap Up*
- 3:30-4:30 *Virtual Networking*

WEDNESDAY, AUGUST 4, 2021

- 8:30-9:10 **Session 7: Legal, Regulatory and Environmental Issues for Repower Projects**
Although repowering provides opportunities to use existing project assets and infrastructure, it is just as complicated as greenfield development. A successful repowering must assess all existing permitting and regulatory approvals, plus consider additional permits to accommodate new equipment – i.e., FAA clearances for longer blades.
- Key regulatory issues for wind repowering
 - Federal, state and local regulations
 - Navigating multiple state goals/mandates for renewables and emissions
 - Key legal considerations for wind repowering
 - Larger or taller equipment issues
 - Wind resource
 - Contract restrictions
 - Community response
 - Decommissioning
 - Managing real property tax issues
 - Land use, environmental and permitting requirements for wind repower projects
- Jacob Hollinger**, *Partner*, MCDERMOTT, WILL & EMERY
Neil Levy, *Partner*, MCDERMOTT, WILL & EMERY
Stephanie Lim, *Counsel*, MCDERMOTT, WILL & EMERY
Ed Zaelke, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY

- 9:10-9:25 *Live Q&A*
- 9:25-9:30 *Break*
- 9:30-10:20 **Session 8: Lessons Learned from a Wind Project Repowering- Developer Case Study**
 No wind development is free from surprises. In this session we will discuss some of the curveballs and pitfalls overcome by a leading developer in a recent wind repowering development and financing.
- How the developer evaluated repowering as an option for their assets
 - Project repowering process
 - Development decisions & due diligence
 - Approvals process considerations, challenges, etc.
 - Procurement and project construction
 - Overall lessons learned
 - Pitfalls and challenge areas
 - Key construction and engineering aspects of wind project repowering
- Lloyd MacNeil**, *Partner*, MCDERMOTT, WILL & EMERY
Kevin McAuliffe, *Partner*, BARCLAY DAMON LLP
Ben Wolcott, *Director, Operations Project Management*, BROOKFIELD RENEWABLE
- 10:20-10:35 *Live Q&A*
- 10:35-10:40 *Break*
- 10:40-11:25 **Session 9: Repowerings from the Equipment Provider Standpoint**
 Partial repowerings present unique challenges for a turbine manufacturer. Just how much additional engineering is required for a partial repowering? This session will answer that question, as well as touch upon:
- Analyzing long term integrity of existing towers and foundations
 - Engineering components to connect the new to the old
 - Conducting a thorough engineering analysis of changes in force and load
 - Procedures for engineering solutions of repower options
 - Part replacements
 - Equipment sizing
 - Warranties, Third-Party Certification, Operation and Maintenance
 - Blade recycling solutions
 - Extended services – tax advantaged equipment and access to financing
- Ben Stafford**, *Sales and Commercial Executive*, GE RENEWABLE ENERGY
Lucy Summerville Giametta, *Wind Services Application Engineering Manager*, GE RENEWABLE ENERGY
- 11:25-11:40 *Live Q&A*
- 11:40-12:10 *Lunch*
- 12:10-1:10 **Session 10: Engineering Assessments for Repowering: Their Impacts on Finance & Investment**
 In this session, we will discuss principal technical and engineering issues for wind repowerings, including what assessments and conclusions lenders and tax equity investors need from the independent engineer and other key consultants.
- Wind turbine towers and foundations- mechanical analyses
 - Wind resource assessments
 - Wind turbine technology and site suitability review
 - Commercial and permitting review

- O&M cost assessments

Session Lead:

Jeremy Tchou, *Director, Due Diligence Services*, UL RENEWABLES

Instructors:

Alireza Akhavan, *Lead Civil Engineer, Advisory Services*, UL RENEWABLES

Donette Miranda, *Head of Environmental and Permitting, Advisory Services*, UL RENEWABLES

Emil Moroz, *Sr. Turbine Engineer, Advisory Services*, UL RENEWABLES

Kate Morphis-Berg, *Sr. Project Manager, Advisory Services*, UL RENEWABLES

Ian Prowell, *Sr. Structural Engineer, Advisory Services*, UL RENEWABLES

1:10-1:25

Live Q&A

1:25-1:35

Break

1:35-2:15

Session 11: The Financier's Perspective on Repowering Projects

The repower market is expanding, but what will convince the financiers to put their money to work for a project? This panel of leading debt and tax equity finance experts will discuss what separates the winning projects from the also-rans,

- How does a repowering differ from greenfield in the eyes of the lenders?
- What is the market for 2021 and beyond?
- What are some recent challenges for financing, and how does the financier work with the developer to solve them?

John Bridge, *Partner*, MCDERMOTT, WILL & EMERY

Shane Easter, *Director*, WELLS FARGO RENEWABLE ENERGY AND ENVIRONMENTAL FINANCE

Kevin Knight, *Managing Director*, GE ENERGY FINANCIAL SERVICES

Andrew Vernon, *Senior Director, Structured Finance*, NORD/LB

2:15-2:30

Live Q&A

2:30-2:45

Break

2:45-3:45

Session 12: Interactive Course Recap and Expert Roundtable

This Interactive Live Zoom Session at the class conclusion allows you to get your most pressing questions answered. In this session, the instructors will review the course topics and hold a roundtable discussion and Q/A session.

Lloyd MacNeil, *Partner*, MCDERMOTT, WILL & EMERY

Ed Zaelke, *Co-Head of Energy and Project Finance*, MCDERMOTT, WILL & EMERY

3:45

Master Class Adjourns