



Wednesday, October 22
9:00 am-10:30 am

804 Going Green? A Primer on the Purchase and Sale of Renewable Energy Attributes

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Faculty Biographies

Mark E. DeAngelis

Mark E. DeAngelis is a member of the senior management team of RNK Capital and is responsible for sourcing, evaluating, structuring, and executing investments for RNK Capital's private investment funds. RNK Capital is a private investment firm specializing in the global environmental, emissions, energy, utilities, and water markets. Since joining RNK Capital, Mr. DeAngelis has managed and overseen several of RNK Capital's investments in projects and transactions consummated under the Kyoto Protocol and the various US compliance and voluntary environmental markets. Additionally, Mr. DeAngelis has led many of RNK Capital's strategic transactions, including many first-of-its-kind transactions in the international carbon market.

Previously, Mr. DeAngelis served as managing director, chief operating officer and general counsel of RNK Capital. In that role, Mr. DeAngelis developed the strategies for, and oversaw the legal and operations functions of, RNK Capital and its funds. Prior to joining RNK Capital, Mr. DeAngelis was a member of the corporate department of Hogan & Hartson LLP in New York. While at Hogan & Hartson, Mr. DeAngelis served as RNK Capital's primary outside counsel. Previously, Mr. DeAngelis was a member of the corporate departments of O'Melveny & Myers LLP and Rogers & Wells.

Mr. DeAngelis is a regular speaker on climate change and environmental financial markets at the Cornell Institute for Public Affairs.

Mr. DeAngelis holds a BS from Cornell University, a MPA from the Cornell University Institute for Public Affairs, a JD from Brooklyn Law School, and a LLM from New York University School of Law.

Fred B. Jacobsen

Fred B. Jacobsen is a senior attorney for FPL Group Inc., in Juno Beach, Florida. He is a transactional energy attorney primarily providing legal counsel and services in support of FPL's commodity trading, marketing, and origination activities.

Mr. Jacobsen has more than thirteen years of transactional energy experience. Prior to joining FPL, Mr. Jacobsen was in-house counsel for NiSource, Inc., and has also held several law firm positions, most recently as a partner with McGuireWoods LLP's energy practice group.

Mr. Jacobsen received his BA from Valparaiso University in Indiana and his JD from Northwestern University.

Byron Woodman

Byron Woodman is sales director at Community Energy, Inc., an Iberdrola Renewables Company, in Concord, Massachusetts. He is responsible for the market development for renewable energy certificates in New England and the Mid-Atlantic. In this capacity, Mr. Woodman works with corporations, state and local governments and universities to advance the development of wind power throughout the region.

After graduating from Cornell University and working in the management consulting industry, Mr. Woodman joined Community Energy as an account executive.

Thomas R. Woolsey

Thomas R. Woolsey is a partner in the Miami office of Hogan & Hartson LLP and is a member of the Project and International Finance Group. He focuses his practice on acquisition, development, and financing of energy projects in the United States and Latin America. Mr. Woolsey has represented several of the largest developers of renewable energy projects in the world and has been actively involved in all phases of the acquisition, development and financing of wind, solar, geothermal, and biomass electric generating facilities. In the past four years, Mr. Woolsey has been the lead attorney on nearly one billion dollars of financing for wind energy facilities. Mr. Woolsey has also been the lead attorney on major acquisition efforts in the United States and Latin America involving both generation projects and electric distribution companies.

In addition to his experience in private practice, Mr. Woolsey served as senior vice president, senior counsel, and corporate secretary of a major bank holding company where he was responsible for all of the legal affairs for that institution and its subsidiaries and the legal aspects of mergers and acquisitions and major financings.

Mr. Woolsey received his bachelor's from the University of Illinois, where he was a member of Phi Beta Kappa. He also received a JD from the University of Illinois, where he was a member of the Order of the Coif and recent developments editor for Law Forum.

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Introduction and Overview

- Renewable Energy Certificates (RECs)
- Certified Emission Reductions (CERs) or Carbon Credits
- Potential Legal Issues
- Contractual Issues

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Renewable Energy Certificates (continued...)

- Defining the Markets
 - Regulatory
 - Voluntary
- Production of RECs
 - Utility Scale
 - Net Metering

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Renewable Energy Certificates

- Why Renewable Energy Certificates?
 - Environmental Benefits
 - Homeland Security
 - Protection against rising energy costs
 - Media & Marketing Communications
 - Local, State, or Federal Regulatory Requirements

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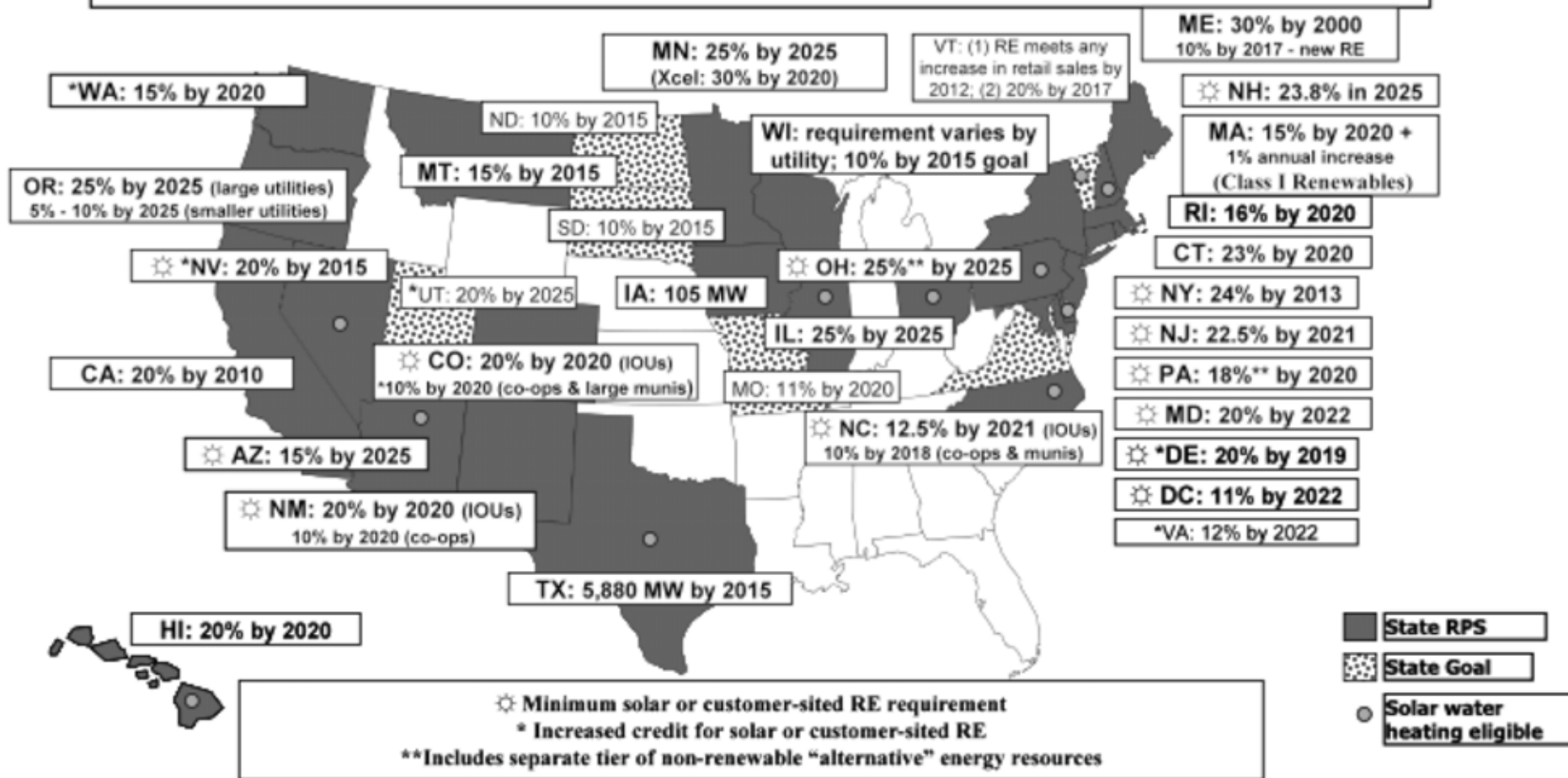
Renewable Energy Certificates (continued...)


- Types of Transactions
 - Wholesale Transactions
 - Renewable Portfolio Standard
 - RPS Mandates that a Load Serving Entity provide a certain percentage of RECs based on energy sold
 - RECs are generated when a megawatt hour (MWh) of electricity is generated by a renewable energy project in an RPS state
 - 27 States and the District of Columbia require utilities to generate a percentage of electricity using renewable fuels
 - Voluntary Green Power Programs

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Renewables Portfolio Standards




 **Renewable Energy Certificates** (continued...)


- Types of Transactions (continued...)
 - Retail Transactions
 - Significant recent growth in this market
 - RECs can be repackaged into non-REC products such as “carbon footprint offsets”
 - Little purchase activity at individual consumer level

 **CERs or Carbon Credits**


- Global Carbon Markets
 - Goals
 - Mandatory
 - Voluntary
 - Treatment of Renewable Energy
- US Renewable Energy Markets
 - Goals
 - Mandatory
 - Voluntary

 **Renewable Energy Certificates** (continued...)


- Accessing the Market
 - Channels to Market
 - Utilities & Other Load Serving Entities
 - Direct Outreach
- Standards
 - Green-e Standards & Verification
- Potential Issues & Pitfalls

 **CERs or Carbon Credits** (continued...)

- Intersection of Carbon Market with REC Market
 - Do they have consistent goals
 - Can they co-exist?
 - What changes/modifications are needed?

 **CERs or Carbon Credits** (continued...)


- Players; Accessing the Market
 - Private Transactions
 - Over-the-counter (OTC) markets; brokers
 - Commodities Exchanges
- Challenges Ahead - Issues and Pitfalls

 **Potential Legal Issues** (continued...)

- Trade Regulation
 - FTC Green Guides
 - Current regulations
 - Revision of regulations

 **Potential Legal Issues**

- Securities Regulation - Federal
 - Treatment of a REC as a “security”
 - Applicability of disclosure requirements
 - Anti-fraud provisions
- Securities Regulation - States

 **Potential Legal Issues** (continued...)

- Trade Regulation (continued...)
 - Statements on Disclosure from Other Organizations
 - American Wind Energy Association – 1998
 - National Association of Attorneys General - 1999
 - Environmental Law and Policy Center – 2002

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Potential Legal Issues (continued...)

- Property Rights
 - Uniform Commercial Code
 - Article 2 – Sales
 - Article 8 – Investment Securities
 - Article 9 – Secured Transactions
 - Other State Law Issues

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Potential Legal Issues (continued...)

- Financing Issues (continued...)
 - Perfection by control:
 - Electronic Chattel Paper?
 - Deposit Account?
 - Certificated Securities?

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Potential Legal Issues (continued...)

- Financing Issues
 - Perfection by Filing:
 - Accounts?
 - General Intangibles?
 - Payment Intangibles?
 - Chattel Paper?
 - No filing system in place
 - Untested in bankruptcy proceedings

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Contractual Issues

- Pricing
 - REC value in both the RPS and voluntary markets is tied to the type and location of the generation
 - Demand for RECs is driven by enforceable utility RPS obligations and supplemented by green consumers entering market

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Contractual Issues (continued...)

- Pricing (continued...)
 - Prices paid for RECs reflects these generation types and their perceived “value”




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Regional Tracking Systems

Currently there are five regional REC tracking systems where credits are created, counted, and sold:

- New England Power Pool Generation Information System (GIS)
- PJM Generation Attribute Tracking System (GATS)
- Midwest Renewable Tracking System (MRETS)
- Electric Reliability Council of Texas (ERCOT)
- Western Renewable Energy Generation Information System (WREGIS)



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Contractual Issues (continued...)

- Preliminary Considerations
 - Bundled vs. Unbundled REC sales
 - RECs may be sold with the electricity or unbundled and sold separately in most states
 - Green-e is becoming the *de facto* standard for most “Voluntary” (non-RPS) sales
 - Regional tracking systems facilitate trading in some areas


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Contractual Issues (continued...)


- Company Specific Agreements
 - Many companies seek to document REC transactions under their existing forms of general procurement agreements; however, such forms, including standard terms and conditions, typically fail to address REC-specific considerations
 - Recognizing these shortcomings, many active participants in the REC marketplace have developed their own forms of transaction documentation
 - As the largest wind generator and solar producer in the world, FPL Energy LLC has developed company-specific forms for documenting REC transactions, which are continually updated to reflect developments in the marketplace

 **Contractual Issues** (continued...)


- **Master Renewable Energy Certificate Purchase and Sale Agreement**
 - Developed by working group organized by the American Bar Association (ABA), the Environmental Markets Association (EMA), and the American Council On Renewable Energy (ACORE)
 - http://www.acore.org/pdfs/ABA_EMA_ACORE_Master_REC_S_Agreement.pdf
 - Frequently used in RFPs and as a starting point in bilateral negotiations
 - EEI. Working group in process of drafting annex, estimated release in early 2009
 - ISDA. Presently intend to review EEI efforts and will consider providing as a supplement to ISDA Power Annex

 **Contractual Issues** (continued...)


- **Key Contractual Provisions** (continued...)
 - Vintage
 - Transfer
 - Tracking System
 - Attestation Requirements
 - Delivery
 - Spot
 - Forward


 **Contractual Issues** (continued...)

- **Key Contractual Provisions**
 - Product Definition
 - Type of REC
 - Source
 - RPS Qualification
 - Green-e
 - Unit Contingent
 - Exclusions


 **Contractual Issues** (continued...)

- **Key Contractual Provisions** (continued...)
 - Payment Terms
 - Credit Requirements
 - Seller's Representations and Warranties
 - Double Counting
 - Risk Allocation
 - Change in Law
 - Governmental Action
 - Trade vs. Delivery Date

 **Conclusion: Make Sure You Fully Understand What You're Buying**

 **Useful Green Power Links** (continued...)


- Green Power Disclosure Guidelines
 - **Federal Trade Commission Green Guidelines (Current)**
<http://www.ftc.gov/bcp/grnrule/guides980427.htm>
 - **National Association of Attorneys General Green Marketing Guidance**
http://www.eere.energy.gov/greenpower/buying/pdfs/naag_0100.pdf

 **Useful Green Power Links**


- General
 - **EPA Green Power Partnership**
<http://www.epa.gov/greenpower/>
 - **Green Power Network – U.S. Department of Energy**
<http://www.eere.energy.gov/greenpower/about/index.shtml/>
 - **Database of State Incentives for Renewables and Efficiency**
<http://www.dsireusa.org>

 **Useful Green Power Links** (continued...)


- Green Power Product Certification Programs
 - **Environmental Resources Trust**
<http://www.ert.net/ecopower/index.html>
 - **Green-e Certification**
<http://www.green-e.org>

 **Useful Green Power Links** (continued...)

- **REC Tracking Systems**
 - **Electric Reliability Council of Texas REC (Texas RECs)**
<https://www.texasrenewables.com>
 - **Midwest Renewable Energy Tracking System (M-RETS)**
<http://www.m-rets.com>
 - **New England Power Pool Generation Information System (NEPOOL-GIS)**
<http://www.nepoolgis.com>

 **Useful Green Power Links** (continued...)

- **Carbon Emissions**
 - **Point Carbon**
<http://www.pointcarbon.com>
 - **Pew Center on Global Climate Change**
<http://www.pewclimate.org>
 - **United Nations Framework Convention on Climate Change**
<http://unfccc.int/2860.php>

 **Useful Green Power Links** (continued...)

- **REC Tracking Systems** (continued ...)
 - **North American Renewables Registry**
<http://narenewables.apx.com>
 - **PJM Interconnection Generation Attributes Tracking System (GATS)**
<http://www.pjm-eis.com/gats/gats.html>
 - **Western Renewable Energy Generation Information System (WREGIS)**
<http://www.wregis.org>