



Generating a Renewable Energy Hedge

**Developing Renewable Energy Hedge Contracts between
Energy Users and Renewable Energy Developers**

An SNHU Seminar

Thursday, July 19, 9 a.m. to 3:30 p.m.

SNHU Robert Frost Hall, Walker Auditorium

Lunch – SNHU Hospitality Center Restaurant

Cost: \$50

Southern
New Hampshire
University 

Renewable Energy Hedges



Renewable energy hedges are good for business and the environment. It is a long-term financial commitment similar to a fixed-rate mortgage in that it can change one's energy budget from a variable to a fixed cost.

The 15-year renewable energy hedge agreement between Southern New Hampshire University and PPM Energy represents the emergence of a new model that satisfies the triple bottom line of sustainability: the economic, the ecological and the social. For energy users the hedge can flatten electricity and natural gas budgets, support renewable energy development and voluntarily offset carbon emissions. For the energy developer, the hedge provides needed long-term cash flows at better terms than those available from conventional power purchase agreements with utilities and power marketers.

The renewable energy hedge is a financial swap based on the durable International Swap Dealers Association contract model. A renewable energy hedge is not subject to utility regulation and does not interfere in user energy purchase decisions. It can serve as the basis for new energy user cooperative groups for both cost-effective renewable hedges and energy purchases.

During this seminar, you'll learn:

- the basics about renewable energy hedges.
- renewable energy hedges from the energy user's perspective.



What are RECs?

RECs are renewable energy credits, sometimes also called green tags, tradable renewable certificates or green energy certificates. According to the U.S. Department of Energy, they represent the technology and environmental attributes of one megawatt hour of electricity generated from a renewable, or “green,” source, such as a wind farm.

Customers do not have to switch providers or use green power to purchase RECs.

- renewable energy hedges from the developer’s perspective.
- how to accurately size, analyze and predict renewable energy hedge performance.
- about legal considerations and accounting practices.
- about energy efficiency and distributed generation strategies.
- about cooperative user groups for renewable energy hedge and energy purchases.

After the seminar, you’ll understand:

- the difference between a long-term power purchase and a hedge financial swap.
- why renewable energy hedges control both electricity and natural gas costs.
- why the renewable energy hedge is no free lunch, but is a great long-term energy cost control measure with minimal out-of-pocket expenses.
- why renewable energy hedges between an energy user in New England and a developer in New York state or Pennsylvania can work.
- why renewable energy hedges are not subject to FAS-133 accounting rules for derivatives.
- how to size the renewable energy hedge you need and predict it’s monthly economic performance for the next 15 years under widely varying future energy price scenarios.
- how the renewable energy hedge may offset carbon emissions and reduce long-term regulatory risk.
- how users can organize cooperative groups to economically purchase hedges and buy energy.

What is a renewable energy hedge?

A renewable energy hedge is a financial contract between a renewable energy generator and an energy user that is intended to protect both against price volatility. It can be compared to a locked-in, fixed-rate mortgage in which parties agree on a fixed, or “strike,” price for power. When the strike price is higher than the market price for power, the generator pays the energy user the difference; when the strike price is lower than the market price for power the energy user pays the generator the difference.

A renewable energy hedge does not simply save money. It enables the energy user to fix its annual energy budget for a generation while supporting green energy development. It gives renewable energy developers a stable income stream that facilitates long-term project financing. The hedge can include both power and RECs.

Example: The farmer and the baker

A farmer in Iowa and a baker in Boston determine that \$1 a bushel is a good price for wheat. They agree on a strike price of \$1 a bushel for 1,000 bushels of wheat. The farmer continues to sell wheat in her market in Iowa, while the baker continues to buy wheat from his supplier in Boston. During the first year, a frost drives the price up to \$1.50 a bushel. Because the farmer made \$500 more and the baker paid \$500 more than the strike price, the farmer sends the baker \$500. The second year, there is a bumper crop of wheat, which drives the price down to \$.50 a bushel. The farmer made \$500 less and the baker paid \$500 less, so the baker sends the farmer \$500. It works out over the two years so that the farmer and the baker have earned/paid \$1 a bushel for wheat, so they both met their goals.

Seminar Agenda

Welcome and User Perspective on Renewable Energy Hedges Paul LeBlanc, President SNHU	9 a.m.
Renewable Energy Hedge 101, Basic Nature and Dynamics of Renewable Energy Hedges Roy Morrison, SNHU Office of Sustainability	9:25 a.m.
Renewable Energy Developer's Perspective on Hedges Reed Armstrong, PPM energy	10 a.m.
Break	10:50 a.m.
Renewable Energy Hedge Sizing and Analysis Pentti Aalto, SNHU Office of Sustainability	11:05 a.m.
Lunch Keynote speaker James A.H. Walsh, Sinova Capital LLC "Renewable Hedges and Capital Markets"	Noon to 1:15 p.m.
Renewable Energy Hedge Legal Issues Attorney Graham Chynoweth	1:15 p.m.
Renewable Energy Hedge Accounting Issues TBA	1:50 p.m.
Break	2:15 p.m.
Next Steps: Cooperative Groups/Energy Strategies Roy Morrison, SNHU Office of Sustainability	2:30 p.m.
Next Steps: Energy Efficiency Project REX	3 p.m.
Closing Remarks	3:30 p.m.
Reception Sponsored by PPM Energy	3:45 p.m.

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