**From:** Willenbrock, Scott S [mailto:willen@illinois.edu]
**Sent:** Monday, October 20, 2014 1:10 PM
**To:** swat-egen@dib.illinois.edu
**Subject:** FW: RECs and sRECs

**From:** Sarah Wochos [mailto:SWochos@elpc.org]
**Sent:** Monday, October 20, 2014 12:03 PM
**To:** Willenbrock, Scott S
**Subject:** RE: RECs and sRECs

1. Yes. The U of I doesn’t need the Illinois RPS to be functional to enter into a long-term REC contract. The RPS is the floor and individuals, companies, alternative suppliers can do anything they want above and beyond. Having a functional RPS will help raise all boats, and collectively it is the most important thing we can do to advance renewables, but sustainably minded entities can do more if motivated to do so. For instance both IKEA and Microsoft have built new wind farms in Illinois this year (they don’t own the farm they just signed a 20-year deal to buy the power + REC), which is fantastic. But the collective power of the RPS means we would see annual incremental development instead of one-off purchases like IKEA and Microsoft. My guess is that the U purchases its power through an alternative supplier. So it would essentially either contract separately for the wind and any remaining power needs, or require that any future contracts with the alternative supplier include the LT wind purchase.
2. Yes, a healthy SREC market is one of the tools that helps incentivize new development. It’s not the only thing that can lead to development; other states have chosen other mechanisms, including rebates, tax credits, etc.

**From:** Willenbrock, Scott S [mailto:willen@illinois.edu]
**Sent:** Friday, October 17, 2014 10:19 AM
**To:** Sarah Wochos
**Subject:** RE: RECs and sRECs

Sarah,

     Thanks a lot for your explanation.   Remarkably, I understand it.   The first time I heard you speak about this it was all news to me, but I am starting to get the hang of it.

     Two follow up questions:

1. Is there any way the U of I could enter into a long-term REC contract now (not REC + power), or will that only be possible after the REC problems are fixed?
2. Do you agree with the solar installers I spoke with that a healthy sREC market in Illinois will incentivize solar PV (residential and larger scale)?

Thanks, Scott

**From:** Sarah Wochos [mailto:SWochos@elpc.org]
**Sent:** Thursday, October 16, 2014 5:01 PM
**To:** Willenbrock, Scott S
**Subject:** RE: RECs and sRECs

Scott-

Here’s my attempt at answering your questions. It’s pretty complicated so please let me know if you have additional questions.

1. A viable SREC market has not yet developed in Illinois. We changed the RPS statute in 2011 to require procurement of distributed generation (DG) RECs, including but not limited to solar. Those contracts need to be 5 years in length, which is the minimum amount the market needs to incentivize growth. Let me know if you want more detail on why 5-years is the appropriate contract length. We have never been able to implement that carve-out because the RPS itself is not entirely functional. The problem is customer switching, meaning customers moving from ComEd for supply service to an Alternative Supplier and back. So basically ComEd can’t sign 5-year DG REC contracts because they don’t have the confidence that they’ll have the customer load needed to cover those 5-year contracts. The Alternative Suppliers also have to comply with the RPS but instead of going out and buying DG RECs themselves, they pay an Alternative Compliance Payment which the Illinois Power Agency then spends on their behalf. The glitch with that money is that it can’t be spent unless money is also spent on ComEd’s RPS compliance and it can only buy “like products.” So if ComEd doesn’t have a procurement of RECs at all, or has a procurement but doesn’t buy DG RECs, then the Alternative Compliance Payment money can’t be used for DG RECs. Crazy, huh? I can discuss this in much greater detail if you’d like. We’re working on fixing the problem, and even argued that the contract could be paid up-front, but to date there is no resolution. Except that we authorized a one-time supplemental procurement of DG SRECs using that Alternative Compliance Money (basically overriding the statute). So we will start to have some development but we need a long-term structural fix to have consistent growth.
2. I agree that 20,000 wind RECs from an already-built project isn’t going to advance renewable energy. Most developers of large projects need a more stable income stream than what they would get by participating in the voluntary REC market. The reason the RECs are so cheap is because of three reasons. First there are some states/utilities that have decided to use renewable energy without an RPS mandate, and they are able to recover the costs of those wind farms without retiring any of the RECs (Iowa is a good example). So they can sell those RECs on the voluntary market (or into other compliance markets like the Illinois RPS) and take whatever price they can get. Their costs are already covered so the REC sale is gravy. Second, when we first put the RPS into place, we said for the first 4 years (2008-2011) we would only buy RECs from projects built in Illinois. Money was a little looser back then, or at least when those projects were first being developed, so knowing that there would be this concentrated demand for Illinois RECs was enough of an incentive (coupled with the PTC…see point 3) for developers to build. There was less supply of Illinois RECs so they could charge a higher rate and recover their costs quicker. We don’t have that requirement anymore, and some would argue that we can’t ever have it again because it is a violation of the Commerce Clause. Nonetheless, those projects are still producing RECs but they can sell them cheaper now because they received that higher payment in those earlier years. Finally, there is a federal Production Tax Credit (PTC) for wind which gives projects $22/MWh for the first 10 years of production. That tax credit guarantee coupled with market power prices was enough to convince some developers that building was a good bet. In Illinois they also had a good market for in-state RECs for a few years. In North Dakota and elsewhere where they don’t have RPS requirements, the PTC and expected power prices was still enough to make projects pencil out. They didn’t need a guaranteed purchaser of the power or the REC to get their project financed. So those projects are also producing RECs and they’ll take whatever they can get for them. So the REC market is saturated right now. But the PTC is going away so developers can’t rely on it anymore. So in order to develop new renewable energy projects (I’m only referring to utility scale projects now…distributed has a different economic model which is why they only need that 5-year SREC payment) we need to provide more of a guarantee to developers. They need a longer-term commitment on their REC or their power or both. So a healthy REC market here would be able to offer those longer-term contracts. So that structural problem I referenced in the point above applies here too.

So bottom line – if we want our RPS to incentivize new development, we need to fix it to be able to offer longer-term REC contracts. And if the U of I really wants to advance renewable energy, it will either sign a long-term contract for RECs from a new project, or better yet a  long-term contract for the power + REC. This is the structure the solar project on campus is using. Hope that helps!

Sarah

**From:** Willenbrock, Scott S [mailto:willen@illinois.edu]
**Sent:** Thursday, October 16, 2014 2:45 PM
**To:** Sarah Wochos
**Subject:** RECs and sRECs

Sara,

    I heard you speak about RECs at the ISEA meeting in April 2014, so I know you know a lot about them.

    I want to ask you two (seemingly) simple questions.

1.       At that conference, several of the solar installers were of the opinion that a viable sREC market in Illinois would catalyze the installation of solar PV.   Their argument was that homeowners (and others) would be incentivized by the fact that they could sell their sRECs and thereby partially offset the cost of installation of the PV.   Has a viable sREC market developed in Illinios, and if not, why not?    (By the way, I have a large solar PV system at my home, but I will never sell my sRECs.)

2.       The U. of Illinois, like many other institutions, has purchased RECs (typically wind RECs) to meet their greenhouse gas emissions goals.    The U. of Illinois (which is in MISO) purchased 20,000 RECs for a little more than $1/REC.   It is not clear to me what good this does.   I don’t really understand how the purchase of voluntary RECs is supposed to support renewable energy.   In practice, all that happened from this purchase is that $20,000 was transferred from the U of I to a wind farm.   No new turbines were installed, and I don’t see how this could incentive a wind farm to install more turbines.     The price is so low, it just doesn’t make sense.    So my question is this: if we had a healthy REC market in Illinois, how would it work, and how would it incentivize the installation of more renewable energy capacity?

Thanks for your time,

        Scott Willenbrock

        Professor of Physics