

Questions, Comments and Responses to Questions on “System Changes to Serve a Federal Renewable Electricity Standard”

The following questions and comments were received by ETNNA and incorporated into the final draft or responded to below.

Questions from the Webinar:

Q: How are "excess" FRECs determined?

A: They are the federal renewable energy certificates (FRECs) associated with State renewable portfolio standard (RPS) compliance where a State RPS target exceeds the Federal RPS target

Q: Does issuing all FRECS to generators preclude generator designating, e.g., power purchaser, as the party with the right to register their purchase in a tracking system?

A: No, that would be acceptable also.

Q: If FREC and REC are separated it seems problematic to link retirement status of each (i.e., FREC know REC retired or REC know FREC retired)

A: Actually this can be indicated in the data file of the renewable energy certificate (REC) as long as there is a protocol that tracks retirement.

Q: On ACPs and FRECS: My understanding is that for every MWh equivalent ACP payment (\$25/MWh), 1 FREC will be issued regardless of whether the ACP payment leads to a MWh of renewable energy generation.

A: Not according to the current language – the FRECs are only issued based on the actual megawatt-hour (MWh) output from the project funded by the alternative compliance payments (ACP).

Q: It's not clear to me why a Federal RES makes a National registry more necessary than it is today. Today, we seem to rely on attestation.

A: First of all, to avoid double counting and double issuing. Since this network is a patchwork of tracking systems, there needs to be one place where all the data are pulled together. Depending on attestations doesn't stop cheating; it just gives a basis for prosecuting cheaters. Because of the patchwork of tracking systems it would be easier to cheat on federal compliance than state compliance where most or all of the RECs must be produced in state or prove they delivered the power into the state. In addition, central electronic coordination between all the tracking systems is much more efficient than each tracking system setting up its own coordination with each of the other tracking systems – that would just be a duplication of effort. This is the primary function that would be performed by the National Registry. Finally, just as State RPS regulators may want a list of all the generators that are registered to participate in their state RPS program (e.g. the California Energy Commission), so a national renewable electricity standard (RES) Administrator would also want the same thing.

Q: When would the Fed system go into effect?

A: That date is generally specified by the legislation. Typically one to two years after passage of the legislation.

Q: If the FREC information is part of the parent REC, how is it possible to split the FREC from the parent REC?

A: That would be done through a technical protocol activated by the REC owner through a request to the tracking system.

Q: Have any of these tracking issues been discussed with Senate/House staff, do they "get it" and what has their response been?

A: ETNNA does not lobby Congress but some of the organizations that do lobby have discussed these issues with Congressional staff. Their responses have been mixed since these involve details with which staff does not generally get involved.

Q: In Fed RES, would a multi-jurisdiction have to show Fed compliance in each of its jurisdictions separately or its entire retail load nationally?

A: To our knowledge, it has not been specified in any of the current bill language. That may be something that would have to be determined through the rulemaking.

Q: Shouldn't our recommendation be that FREC and parent must stay together?

A: The purpose of this paper was to look at the technical issues involved with tracking federal RECs, not to comment on the policy. It is technically possible to track both RECs and FRECs – whether that is desirable is a policy question. However we have mentioned that having parallel federal and state RECs makes it more difficult to ensure there is no double counting or double issuing.

Q: Can the Generator Assign the Registration Rights to the power purchaser under these bills?

A: Yes

Q: Output from an ACP-funded project wouldn't occur until some quarters later than the payment, so when would FRECs be issued based on the project's [future] output? Could be in a later year, so how would FREC be issued/used for compliance year?

A: This is not spelled out in the legislation and would probably need to be part of the rule-making.

Q: If FREC is being used separately and the RE is being used separately, are there two retirements? Do you have to split the FREC in order to "use" the RE for the Fed RES & state RPS? How can you use it in two places but only retire once?

A: Yes, if parallel RECs are issued that can be traded separately there would need to be two retirement accounts -- one for state RPS and one for Federal RPS compliance. IF the two were linked together and couldn't be separated, a liable utility could have one retirement account and use that account to report compliance to both state and federal regulators.

Q: Will keeping the FREC as part of the parent REC prevent fluid trading in the market?

A: It could certainly be argued that way if they could not be separated for trading.

Q: WREGIS also tracks MWhs rather than kWhs but has had some success tracking small commercial and residential generators.

A: The same is true for most of the other tracking systems. The systems issue 1/1000 REC for each kilowatt-hour (kWh) produced.

Q: If generating units are eligible for FRECs once the bill is signed, is the generating unit owner or the tracking system responsible for registering (inclusive of approval by the tracking system) the generating unit to comply with the tracking systems parameters for certificate vintage eligibility?

A: Again this is not spelled out in the legislation and will need to be determined through a rulemaking. It is likely that, just as for state RPS, the generating unit owner would be responsible for registering the generating unit and for following all the compliance rules. That said, to the extent that the tracking system can verify the validity of the data that will help the federal administrator monitor compliance just as the tracking systems are designed to support state RPS compliance.

Q: Under the Fed RES, what would be the responsibilities of state RPS regulators, other than deciding certain issues left by the Fed RES as state options; worrying about double-counting; and otherwise protecting integrity of the state RPS?

A: That seems to pretty well cover it.

Q: Will ETTNA be releasing a new draft of this document for comment that includes the changes discussed today and any comments received by Monday?

A: ETTNA will release a final draft of the paper that incorporates as many of the comments as seem appropriate as well as replying to commentors directly.

Comments received after the Webinar:

#1 Set of comments:

These comments were written as marginal notes on the paper itself and so the comments are not repeated here. The responses follow:

1. Regarding the comment in the email concerning a dual REC system: We agree entirely that is why we recommended a single REC system. Unfortunately though many of the folks who have lobbied on this bill have made the same arguments you did, so far it seems to have fallen on deaf ears but we will continue to consider it an important issue.
2. Yes, only two of the bills have numbers at this time.
3. Yes, duplicate FREC and REC issuance for the same MWh will require specific rules to avoid double counting. Regarding your comment on assigning registration rights, we did incorporate that into the paper. Each MWh will get two RECs for each project's output: a regular REC and a Federal REC. The other

comments in this section get into federal vs state policy, which is the focus of the RPS Collaborative and Clean Energy Group's comments not this paper.

4. Registration rights were noted in the new draft.
5. Regarding serial numbers – We agree, you don't want to have a completely different system for Federal serial numbers than for the basic REC or it will be more likely to lead to double counting.
6. Regarding the single REC system – We believe WREGIS can track unbundled RECs otherwise the voluntary market could not use it. Regardless, you will have to be able to track unbundled RECs for the Federal Program though it cannot track disaggregated RECs.
7. We also suggested a public rulemaking.
8. All of the changes would require programming work depending upon the final legislation
9. Your question about grant money to help small generators participate – whether the money would go directly to the small generator or directly to the tracking system would need to be decided in the rulemaking. The purpose is to cover the cost of registration and fees that the M-RETS folks have said is a real barrier for small generator participation in their system. The intent is for the money to pay these tracking system costs.
10. We agree that it would be easier to have the multipliers put on the back end by the Administrator (as is done now with state level multipliers) and again folks working on these bills have made this point to Congress but we don't know if they were listening. Up to now they have not changed that part of the legislation.
11. We're not quite sure what you meant by using a Program Check Box for eligible generators.—The FRECs are going to be widely traded and must be tracked. A check box (as I understand it) wouldn't take care of the issues..
12. We added visual verification of PPAs into the text as an option.
13. As far as banking FRECs, we believe the existing language is prospective only.
14. Regarding your comment about just “let the buyer beware” – This is a federal program and it is the electricity consumers we are trying to protect. A tracking system is needed that can ensure (to the extent possible) that some generators and load serving entities are not able to game the system at the expense of others. Knowing the requirements and gaming the requirements are two different things.
15. For some systems geographic boundaries are difficult because they look a bit like Swiss cheese outlined by a very winding river path.
16. Why public information? Because this is a Federal program and will have obligations under the Freedom of Information Act and other policies and directives to make the program results, process and procedures as transparent as possible. It is preferable to build this into the system than to be forced to do it later. Also this is a good policy evaluation measure. It allows university, government and Congressional researchers to evaluate the programs without giving them proprietary information. It is not a big extra task or expense and it will garner public good will.
17. Regarding the voluntary market for RECs – Requiring that voluntary market purchasers to keep the REC/FREC bundled together would eliminate the problem, however, market participants have told us they would have more flexibility and

the market would be more fluid if they could purchase RECs wherever they find them and rebundle, where needed.

18. Your comment about exceptions was noted and the language modified accordingly.

#2 Set of Comments:

Q: The paper includes the following: "All existing tracking systems issue RECs to the generator who can then transfer them through contract, sale or trade to another account holder." On the call yesterday (6/9), I tried to make the point that this is not always the case, at least not in the Midwest Renewable Energy Tracking System (M-RETS). WPPI Energy has agreements with renewable energy generators to purchase RECs (and energy). These agreements give us the right, not the generator, to register the generator (limited to our purchase) in M-RETS. In fact, in the case of generators for which the Midwest ISO (MISO) provides the data to M-RET, the data provided are from a node owned by WPPI Energy and not the generator. I think the whitepaper should recognize that not all RECs stem from a generator having registered in a tracking system.

A: We now understand what you were trying to say and have added a sentence to the final draft recognizing this variation in registration. Thank you for participating and providing comments.

3 Set of Comments:

Questions and Responses:

1. **Q:** The serial numbering issue is of critical importance. As the volume of RECs and the volume of transfers grows, keeping track of a chained set of reference numbers will become very difficult. However, system compatibility Issues such as field size, type, indexing and others between systems must be clearly understood. It may be easier to consider compound keys which include system of origin and potentially others as the transfer key. While thinking about expanding the database for these flags, it may also make sense to think of future needed 'indicator flags'.

A: Interesting suggestion that might be considered by the Administrator.

2. **Comment:** A National Project Database may again introduce sources of problems. In my experience, any time that you keep data in multiple places, you will encounter reconciliation issues that you never thought of. However, a centralized database as a 'hub and spoke' system for imports/exports makes a lot of sense. It would need to house 'meta-data' regarding import/export from the various regional registries (as you state in the document). ALSO, it should house a transactional record of each import/export. P.S. Advent Data System built a very successful hub and spoke model for data distribution called the Advent Transaction Network (ATN). They are in San Francisco if you would like to understand their processes and procedures (and the growing pains that they went through).

A: Hub and spoke is what we had in mind when describing this option.

3. **Comment:** The audit/reconciliation function must be truly designed as ‘industrial strength’. Ultimately, someone(s) will have to staff this. It should be designed to envision future connectivity.

A: Again your comment is correct. After its initial design the electronic interface should be self operating with only minimal staff to ensure smooth operation. An advisory committee would be responsible for changes in functionality.

#4 Set -- PJM-EIS Comments

General Comment, page 1

PJM-EIS supports the whitepaper approach not to take a policy position.

Continuation of existing functionality, page 1

PJM-EIS and the states it supports with the GATS have invested significant time and effort implementing systems and processes that now run smoothly and efficiently. We agree that continuation of the existing provision of services is logical. Adaptation of the GATS could be made to ease the transition to inclusion of a federal RES in the GATS.

Size of a FREC, page 3

PJM-EIS finds that tracking Federal Renewable Electricity Certificates (FRECs) in kWh would be overly burdensome. The kWh format becomes especially problematic for large generators representing thousands of MWh. PJM-EIS would prefer a system that records energy as a MWh with three decimal places.

PJM-EIS currently has many residential and small business users of the GATS with smaller generation facilities. PJM-EIS has successfully tracked those users that express their kWh produced generation in MWh format in the GATS.

FREC - what it represents, page 3

PJM-EIS agrees that the ETNNA proposed system of FREC serialization could be implemented in the GATS. Maintaining the same base serial number for Renewable Electricity Certificates (RECs) and FRECs from a specific generation facility with prefixes and suffixes that allow for identification of such details as state compliance, federal compliance, and tracking system of origin would provide a straightforward audit trail.

Dual versus single system, page 5

PJM-EIS agrees that the single REC/FREC system is one that would utilize the existing regional efforts in tracking of RECs and leverage the regional knowledge and expertise for the tracking of FRECs in the relevant regions.

A single system for tracking RECs and FRECs would be simpler to implement. Also, the complexities associated with any excess RECs above the federal RES threshold and below a state RPS threshold would be minimized in a single system. If a dual approach is taken, separating RECs and FRECs, the GATS could be adapted to appropriately track both certificates with some additional efforts.

Distributed generation, page 6

PJM-EIS currently supports states that apply multipliers to some of the RECs and this occurs outside of the GATS. If it were necessary for the certificate multipliers to be applied within the tracking system, PJM-EIS agrees that maintaining a base serial number while utilizing prefixes and suffixes for details would be useful. The prefixes and suffixes could track multiple FRECs created from the same MWh of renewable generation while maintaining an audit trail.

Differences in eligible resources or vintage, page 7

PJM-EIS does not have any specific comments on resource eligibility or in-service date at this time. PJM-EIS is unclear as to the need for a FREC savings account and this issue could be explored further if appropriate.

A: The design details will need to be explored and recommendations for functionality made by the participants (e.g. the FREC Administrator and regional tracking systems) once legislation is passed.

REC trading, page 9

PJM-EIS agrees that development of an electronic import/export facility between tracking systems would be helpful if it is necessary to transfer REC ownership between tracking systems. It would be important to examine the different tracking systems to establish any information gaps between certificates in the different systems. It could then be determined if a bridge is required between the information gaps or if the gaps only exist in cases where the RECs can't be exchanged.

Double counting of FRECs, page 9

PJM-EIS recognizes that renewable generation in states not already served by a registry will need to select a registry for tracking of RECs/FRECs.

PJM-EIS believes a national compliance database, administered by an entity that is independent from the existing tracking systems, would be needed for submission of FRECs. This database could also ensure that generators are only registered in one registry.

PJM-EIS does not believe that a national registry is needed for selling RECs/FRECs to more than one retail service provider or for states covered by more than one registry. It would be sufficient to limit a generation facility to only one registry and to ensure openness for import/export between registries.

A: The issue is that signing an attestation that you are only registered in one registry makes the signer liable for multiple registrations. A national registry/database provides the ability to monitor and ensure multiple registrations are not taking place. The first makes it unlawful; the second catches those that don't abide by the rules.

Double counting compliance and voluntary REC/FREC, page 10

PJM-EIS believes that a single system would allow the simplest methods to avoid double counting of compliance and voluntary RECs/FRECs. Systems and processes could be developed to support prevention of double counting under a dual system with additional effort.

Energy efficiency credits, page 10

As a confirmation to ETNNA, PJM-EIS does currently issues energy efficiency credits through the GATS.

Conclusion, page 11

PJM-EIS does not believe that a national generator registry will be needed in the form described in the conclusion. PJM-EIS believes a national compliance database, administered by an entity that is independent from the existing tracking systems, would be needed for submission of FRECs. This database could also ensure that generators are only registered in one registry.

PJM-EIS does not believe that a national registry is needed for selling RECs/FRECs to more than one retail service provider or for states covered by more than one registry. It would be sufficient to limit a generation facility to only one registry and to ensure openness for import/export between registries.

Certificate Tracking System, page 15

It is the understanding of PJM-EIS that the APX launch of their independent renewable tracking system occurred in June 2009.

A: Thank you for your comments about how this would apply to PJM-EIS.

#5 Set of Comments:

Q: ETNNA should be opposing a dual REC system.

A: In response to your comments about a dual REC system, we do want to repeat that this is not a policy document – it is only identifying what tracking systems would have to do to support a Federal RES. In fact we agree with both your suggestions from a policy position but ETNNA is not lobbying policy (though we will pass those comments on to people who are lobbying on policy).

1. One reason Congress is suggesting dual RECs -- a separate FREC -- is that they want the federal renewable credit to be fully tradable and separate from the base REC.

We are simply illustrating that even if they want the federal renewable credit attribute to be traded separately, you don't have to issue dual RECs to accomplish that. You can still allow the federal renewable credit attribute to be traded separately but by having it as a subset of the base REC that makes tracking and accounting much more transparent. It also makes it easier to keep track of this attribute being sold separately and thus eliminating the ability of the base REC to be used for carbon reduction purposes. (The feds don't consider this double counting even if the voluntary market does.) We are also hoping that state regulators will rule against allowing the sale of "excess FRECs" (i.e. where a state has an RPS standard higher than the federal standard, according to the proposed legislation the utility can sell the "excess FRECs" to other utilities unless the state prohibits it.

2. One purpose of issuing multiple FRECs is to provide greater flexibility to the market and encourage certain favored technologies. As mentioned earlier, the proposed legislation's definition of double counting (having the same FREC applied more than

once for compliance purposes for the federal RES) is different than what we might envision. In this paper we are trying to protect the integrity of the base RECs, reduce confusion among REC purchasers (as much as is possible under this proposed legislation), and keep the FRECs as isolated as possible from diluting state RPS compliance.