



FLORIDA MUNICIPAL SOLAR PROJECTS
ARP SOLAR PROJECTS

AGENDA PACKAGE

Telephonic Meeting

October 17, 2023

10:00 a.m.

Dial-In – 321-299-0575

Meeting Number 297 009 240 871#

Meeting Location

Via Teams at

Florida Municipal Power Agency

8553 Commodity Circle

Orlando, FL 32819

(407) 355-7767



MEMORANDUM

TO: FMPA Joint Solar Projects Committees
FROM: Susan Schumann
DATE: October 10, 2023
SUBJECT: FMPA Solar Projects and ARP Solar Participants Advisory Committees Joint Teams/Telephonic Meeting
Tuesday, October 17, 2023, 10:00 a.m.

DIAL-IN INFORMATION: 321-299-0575

Meeting Number: 297 009 240 871# - LINK: [Click here to join the meeting](#)
(If you have trouble connecting via phone or Teams, please call 407-355-7767)

AGENDA

Chair Barbara Quiñones Presiding

- 1. Call to Order, Roll Call, Declaration of a Quorum**
- 2. Public Comments (Individual Public Comments Limited to 3 Minutes Each)**
- 3. Set Agenda**
- 4. Consent Agenda**
 - a. Approval of Minutes – Meetings Held June 30, 2022 and August 1, 2022
- 5. Action Items:**
 - a. Election of Solar III Project Committee Chair (Barbara Quiñones/Susan Schumann)
 - b. Election of ARP Solar I, II and III Project Participants Advisory Committee Chair (Howard McKinnon/Susan Schumann)
- 6. Info Items**
 - a. Phase II – Rice Creek and Whistling Duck Update (Susan Schumann)
 - b. Solar II Project – Rice Creek and Whistling Duck Working Capital (Jason Wolfe)
 - c. Renewable Energy Credits (RECs) Market Opportunities and Risks (Robert Nelcoski)

7. Comments

8. Adjournment

The participants in the above referenced public meeting will conduct the public meeting by Teams/telephone, via a telephone conference hookup. There will be a speaker telephone made available for any interested person to attend this public meeting and be fully informed of the discussions taking place by telephone conference hookup at FMPA's headquarters, located at 8553 Commodity Circle, Orlando, Florida 32819-9002. If anyone chooses to appeal any decision that may be made at this public meeting, such person will need a record of the proceedings and should accordingly ensure that a verbatim record of the proceedings is made, which includes the oral statements and evidence upon which such appeal is based. This public meeting may be continued to a date and time certain, which will be announced at the meeting. Any person requiring a special accommodation to participate in this public meeting because of a disability, should contact FMPA at (407) 355-7767 or 1-(888)-774-7606, at least two (2) business days in advance to make appropriate arrangements. Any interested person may contact FMPA for more information on this public meeting by calling (850) 297-2011 or (877) 297-2012 or writing to: Open Government Law Compliance Coordinator, Florida Municipal Power Agency, 2061-2 Delta Way, Post Office Box 3209, Tallahassee, Florida 32315-3209.

NOTICE SENT TO CLERKS..... JUNE 27, 2022
AGENDA PACKAGE SENT TO MEMBERS JUNE 27, 2022

MINUTES
FMPA SOLAR I AND II COMMITTEES JOINT MEETING
JOINT TELEPHONIC COMMITTEE MEETING
JUNE 30, 2022
FLORIDA MUNICIPAL POWER AGENCY
8553 COMMODITY CIRCLE, ORLANDO, FL 32819

SOLAR PHASE I ARP COMMITTEE MEMBERS PRESENT:

- Javier Cisneros, Fort Pierce
- Allen Putnam, Jacksonville Beach
- Lynne Tejeda, Key West
- Larry Mattern, Kissimmee
- Doug Peebles, Ocala

SOLAR PHASE I COMMITTEE MEMBERS PRESENT:

- Rodolfo Valladares, Alachua
- Brad Hiers, Bartow
- Billy Branch, Homestead
- Ed Liberty, Lake Worth Beach
- James Braddock, Wauchula
- Justin Isler, Winter Park

SOLAR PHASE II ARP COMMITTEE MEMBERS PRESENT:

- Javier Cisneros, Fort Pierce
- Howard McKinnon, Havana
- Allen Putnam, Jacksonville Beach
- Lynne Tejeda, Key West
- Larry Mattern, Kissimmee
- Dallas Lee, Newberry
- Doug Peebles, Ocala

SOLAR PHASE II COMMITTEE MEMBERS PRESENT:

- Billy Branch, Homestead
- Ed Liberty, Lake Worth Beach
- Steve Langley, Mount Dora
- Tim Beyrle, New Smyrna Beach
- Justin Isler, Winter Park

STAFF PRESENT:

- Jody Finklea, General Counsel and CLO (virtual)
- Ken Rutter, Chief Operating Officer
- Dan O'Hagan, Assistant General Counsel and Regulatory Compliance Counsel
- Susan Schumann, Manager of External Affairs and Solar Projects

Chris Gowder, Business Development and Planning Director
Navid Nowakhtar, Resource and Strategic Planning Manager
Rich Popp, Treasurer and Risk Director
Sue Utley, Exec. Asst. to CEO/Asst. Secy. to the Board
Lindsay Jack, Administrative Specialist

OTHERS PRESENT:

Bill Herrington, WHH Enterprises

Item 1 - Call to Order, Identification of Attendees

Chair Billy Branch, Homestead, called the FMPA Joint Solar I and Solar Phase II meeting to order at 1:00 p.m. on Thursday, June 30, 2022, in the Executive Conference Room at Florida Municipal Power Agency, 8553 Commodity Circle, Orlando, Florida. The roll was taken, and a quorum was declared, with 15 of 15 members present.

Item 2 – Public Comments

None

Item 3 – Set Agenda

MOTION: Allen Putnam, Jacksonville Beach, moved approval of the agenda as presented. Howard McKinnon, Havana, seconded the motion. Motion carried 15-0.

Item 4 – FMSP Update and Possible Committees Action

FMSP Status Updates

- Phase I Solar
 - FRP Proposal for Poinsett
- Phase II Solar
 - Origis Proposal for Rice Creek and Whistling Duck
- FMPA Evaluation and Positions
- Phase III Solar

Participant Considerations and Discussion

FMPA Staff Recommendation

- Refer to pricing information provided separately.

Item 5 – Comments

None

Item 6 – Adjournment

There being no further business, the meeting was adjourned at 1:48 p.m.

Approved

NOTICE SENT TO CLERKS.....JULY 27, 2022
AGENDA PACKAGE SENT TO MEMBERSJULY 29, 2022

MINUTES

**FMPA SOLAR I AND II COMMITTEES JOINT MEETING
JOINT TELEPHONIC COMMITTEE MEETING
AUGUST 1, 2022 AT 11:00 AM
FLORIDA MUNICIPAL POWER AGENCY
8553 COMMODITY CIRCLE, ORLANDO, FL 32819**

SOLAR PHASE I ARP COMMITTEE MEMBERS PRESENT:

Javier Cisneros, Fort Pierce
Lynne Tejeda, Key West
Larry Mattern, Kissimmee
Tony Clayton, Ocala

SOLAR PHASE I COMMITTEE MEMBERS PRESENT:

Brad Hiers, Bartow
Billy Branch, Homestead
James Braddock, Wauchula
Dan D'Alessandro, Winter Park

SOLAR PHASE II ARP COMMITTEE MEMBERS PRESENT:

Javier Cisneros, Fort Pierce
Lynne Tejeda, Key West
Larry Mattern, Kissimmee
Dallas Lee, Newberry
Doug Peebles, Ocala

SOLAR PHASE II COMMITTEE MEMBERS PRESENT:

Billy Branch, Homestead
Wayne Zimmerman, Mount Dora
Tim Beyrle, New Smyrna Beach
Dan D'Alessandro, Winter Park

SOLAR PHASE I and II COMMITTEE MEMBERS ABSENT:

Rodolfo Valladares, Alachua
Howard McKinnon, Havana
Allen Putnam, Jacksonville Beach
Ed Liberty Lake Worth Beach

STAFF PRESENT:

Jody Finklea, General Counsel and CLO (virtual)
Ken Rutter, Chief Operating Officer
Jody Finklea, General Counsel and CLO
Dan O'Hagan, Assistant General Counsel and Regulatory
Compliance Counsel (virtual)

Susan Schumann, Manager of External Affairs and Solar Projects
Chris Gowder, Business Development and Planning Director (virtual)
Navid Nowakhtar, Resource and Strategic Planning Manager
Sue Utley, Exec. Asst. to CEO/Asst. Secy. to the Board

OTHERS PRESENT:

Bill Herrington, WHH Enterprises

Item 1 - Call to Order, Roll Call, Declaration of a Quorum

Chair Larry Mattern, Kissimmee, called the FMPA Joint Solar I and Solar Phase II meeting to order at 11:00 a.m. on Monday, August 1, 2022, in the Executive Conference Room at Florida Municipal Power Agency, 8553 Commodity Circle, Orlando, Florida. The roll was taken, and a quorum was declared, with 11 of 15 members present.

Item 2 – Public Comments

None

Item 3 – Set Agenda

MOTION: Lynne Tejada, Key West, moved approval of the agenda as presented. Javier Cisneros, Fort Pierce, seconded the motion. Motion carried 11 – 0.

Item 4 – FMSP Update and Approval of Letter of Intent Between FMPA and Origis Development

FMSP Status Updates

- Phase I Solar
 - FRP Proposal for Poinsett
- Phase II Solar
 - Origis Proposal for Rice Creek and Whistling Duck
- FMPA Evaluation and Positions
- Phase III Solar

Participants and staff discussion ensued.

MOTION: Dan D'Alessandro, Winter Park, moved approval for Phase II for FMPA to enter into a Letter of Intent with Origis and to move forward with activities specified in the Principal Terms. For Phase I, moved approval for FMPA staff to reject FRP's best and final pricing for alternative site to Poinsett. Billy Branch, Homestead, seconded the motion. A roll call vote was taken and carried 11 - 0.

Item 5 – Comments

None

Item 6 – Adjournment

There being no further business, the meeting was adjourned at 11:35 a.m.

Approved



5a Election of Solar III Project Committee Chair

FMSP Joint Committee Meeting

October 17, 2023

Solar III Project Participants

Summary

- Homestead
- JEA
- Lake Worth Beach*
- Winter Park

*Ed Liberty has agreed to serve as Chair if elected

Solar III Project Committee

Summary

- The Power Sales Contract between FMPA and each Solar III Project Participant provides for a project committee (composed of one representative from each Participant) to make certain decisions.
- Each Participant has named its representative.
- Proposed charter for the project committee will be brought back to the Participants for vote.
- Today, for purposes of orderly discussion, asking to proceed with electing a chair.

Recommended Action

- Nominate and Elect Solar III Committee Chairperson and Recommend Chair to Board of Directors for final Approval



5b Election of ARP Solar Phases I, II and III Participants Advisory Committee Chair

FMSP Joint Committee Meeting
October 17, 2023

Chair vacancies for all three ARP Solar Committees

Phase I Participant	Representative
Fort Pierce	Javier Cisneros
Jacksonville Beach	Allen Putnam
Key West	Lynne Tejeda
Kissimmee	Larry Mattern
Ocala	Doug Peebles

Phase II Participant	Representative
Fort Pierce	Javier Cisneros
Havana	Howard McKinnon
Jacksonville Beach	Allen Putnam
Key West	Lynne Tejeda
Kissimmee	Larry Mattern
Newberry	Mike New
Ocala	Doug Peebles

Phase III Participant	Representative
Key West	Lynne Tejeda
Leesburg	Brad Chase
Ocala	Doug Peebles

- Larry Mattern (KUA) stepping down as Chair for Phase I and II ARP Committees
- Lynne Tejeda (KEYS) has agreed to serve as Phase I, II and III ARP Committee Chair if nominated and elected
- Separate vote required for each Solar Phase Committee
- Chair recommendation must be approved by Executive Committee

Recommended Action

Each Committee Votes Separately

- Nominate and elect Chair(s) for ARP Solar I, II and III Participant Advisory Committees and Recommend Chair to Executive Committee for final Approval



6a Phase II – Rice Creek and Whistling Duck Update

FMSP Joint Committee Meeting

October 17, 2023

FMSP Phase II Solar Update

Rice Creek and Whistling Duck Interconnection Delays

- Rice Creek Solar (FPL-interconnected facility)
 - July Quarterly Progress Report anticipated FPL backfeed Dec. 27, 2023, later revised to June 2024
 - FPL advised Seller of potential delays in delivery of equipment
- Whistling Duck Solar (Duke-interconnected facility)
 - April/July Quarterly Progress Reports anticipate Duke backfeed June 4, 2025
 - Duke cites delays related to supply chain and procurement of equipment
- COD typically occurs ~ 8-12 weeks after backfeed
- Frequent Origis communications to FMMPA indicate diligent attempts to streamline activities to prevent/mitigate delays
- FMMPA communicating with FPL and Duke to encourage urgency
- FERC Order 2023 recently issued to alleviate similar interconnection backlogs across nation; but changes not in effect in time for these interconnections

Rice Creek and Whistling Duck Solar Facilities

Discussion of Solar Power Purchase Agreement Terms

- PPA's Executed December 12, 2019
- ***“Target Commercial Operation Date”*** means the date that is the latter of (a) 365 days after the Transmission Service Deadline and (b) December 31, 2023.
- ***“Permitted Extensions”*** means the extensions to the Target Commercial Operations Date set forth in Section 4.2. (emphasis added)
 - ...may be extended on a day-for-day basis for a cumulative period equal to no more than **redacted** days if Seller has used Commercially Reasonable Efforts to have the Project physically interconnected to the Transmission System and to complete all Transmission Owner's Interconnection Facilities, if any, but such interconnection or Transmission Owner's Interconnection Facilities cannot be completed by the Target Commercial Operation Date for reasons beyond Seller's reasonable control and Seller has worked diligently to resolve the delay (***“Interconnection Delay”***)

Rice Creek and Whistling Duck Solar Facilities

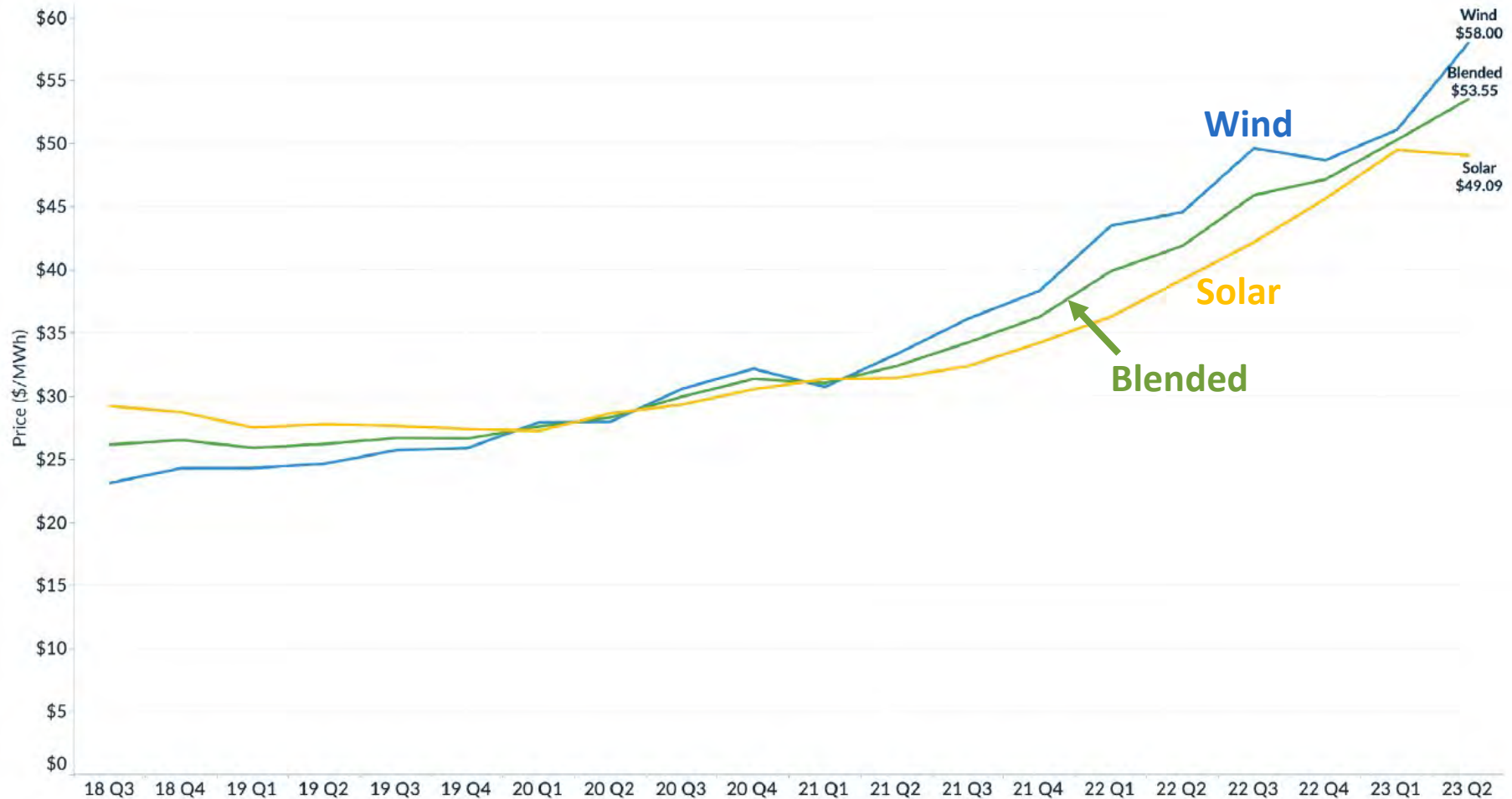
Discussion of Solar Power Purchase Agreement Terms

- To claim Permitted Extension, Origis must provide Notice 60 days prior to December 31, 2023, Target Commercial Operation Date
 - Wednesday, November 1, 2023
- Maximum Permitted Extension for Rice Creek and Whistling Duck
 - *Date Redacted in PPA*
 - Rice Creek still within Permitted Extension period, Whistling Duck exceeds
- If Permitted Extension period is exceeded:
 - FMPA is entitled to draw upon Performance Assurance for liquidated damage equal to Daily Delay Damages per the terms of the PPA

Intermittent Wind/Solar Prices Doubling Since 2020

IRA - Inflationary Prices as Developers Bid for Scarce Materials

Market-Averaged P25 Continental Index for North America – Quarterly Power Purchase Agreement Prices



Member Discussion

No immediate decisions to make

- No decision point until approaching end of Permitted Extension schedule (late 2024)



6b Solar II Project – Rice Creek and Whistling Duck Working Capital

FMSP Joint Committee Meeting

October 17, 2023

Solar II Project Working Capital

- Power Sales Contract requires Project to hold \$250k in working capital funds
- Ensures Project can pay bills if one or more participants unable to pay
- \$250k ~ 40 days cash
- Working capital to be funded once energy begins flowing from PPA, held in place during term of Power Sales Contract

Power Sales Contract Provides Working Capital Options

Solar II Project Committee Selects Approach

- Fund through rates
- Fund through another financial instrument
 - Letter of credit
 - Line of credit

Option 1: Cash Funding

FY 2024 Budget Assumed Cash Funding

- Conservative approach for spending authority purposes
- \$250k working capital funded through rates
- Each Participant's portion to be contributed based on its respective Power Entitlement Share in Solar II Project
- Entire \$250k collected evenly over 6-month period beginning with Rice Creek commencing operation
- Avg. rate impact ~ \$7/MWh over those months
- Interest earnings on the \$250k (~\$20k/yr at current market rates) could be passed to Participants through rates and lower overall Project costs

Option 2: Letter of Credit

Each Participant Would Be Required to Post Individually with FMMPA as Beneficiary

- Does not require up-front collection of \$250k from members
- Fairly standard, and most banks could provide
- If not used, only charged fees to establish and maintain the letter of credit. Indicative cost is around 2-3% per year
- Can be processed within 24 hours
- Typical repayment within 90 days; if not, turns into a term loan
- Term may vary by bank and could be 1 – 5 years
- Major challenge with this approach: Each Participant would need to obtain its own letter of credit with FMMPA as the beneficiary
 - \$250k working capital is part of the Power Sales Contract but is not a requirement of the Origis contracts
 - Each Participant would need to maintain a letter of credit over the full 20-year PPA period. All costs of the letter of credit would be borne by the individual Participant

Option 3: Line of Credit

Associated Costs Including Fees, Interest Payments Would be Project Costs and Collected through Monthly Rates

- Does not require up-front collection of \$250k from members
- Obtaining line of credit would require Bond Counsel review and resolution, which would be an up-front cost
- Cost on draws on the line is typically a percentage of current SOFR* plus a defined basis point adder
- Bank may require a fee if the line is not used
- Borrowing for working capital is taxable, which would result in a higher cost than tax exempt
- Project has no credit history, which would also increase costs

Decisions for Solar II Project Committee

No Decision on Approach Needed Yet

- Which mechanism does the Project wish to use?
- If cash:
 - Collect entire \$250k when Rice Creek begins operations or split between Rice Creek and Whistling Duck (\$125k each)?
 - Collect funds through rates or lump sum payment?
 - If through rates, how many months to spread collection?
- Staff recommendation is to fund with cash, collected through rates
 - Split between facilities, with \$125k to be collected evenly over 6 months when each facility begins operation
- No decision needed yet



6c REC Market Opportunities And Risks

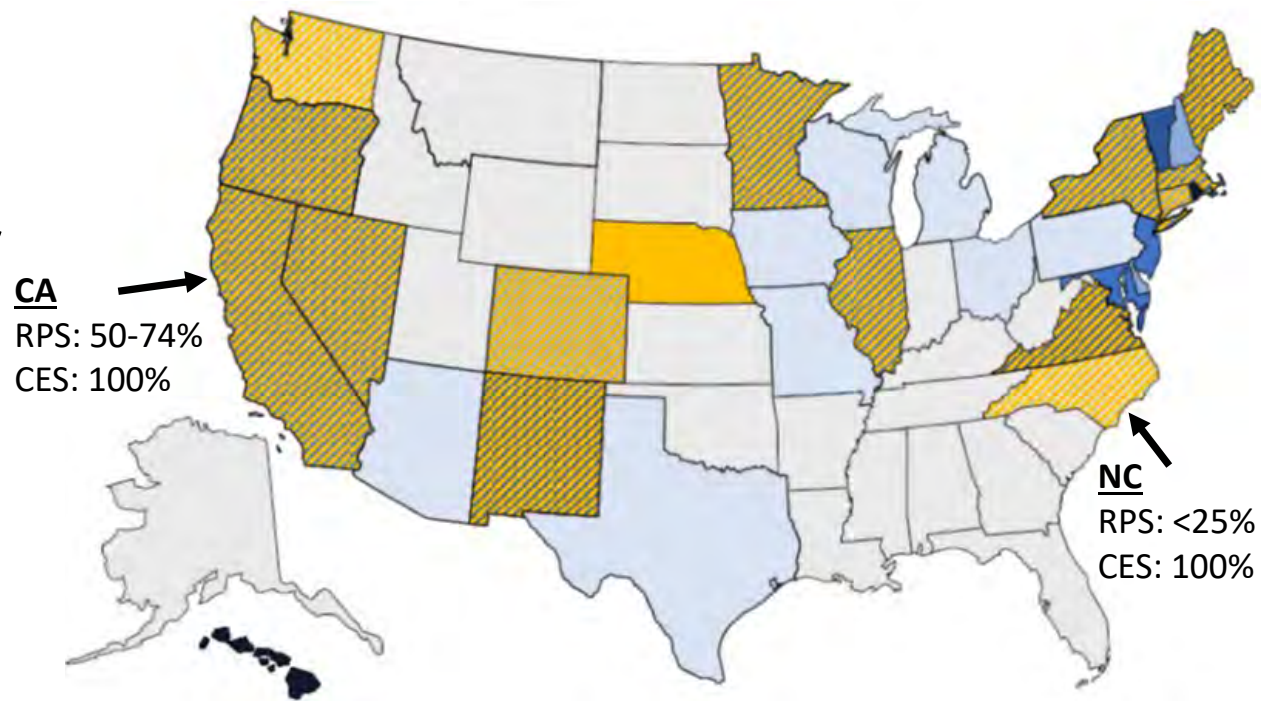
FMSP Joint Committee Meeting
October 17, 2023

What is a REC? A Renewable Energy Certificate

Strip Away Energy Delivered from Renewable Attribute

- Renewable attribute of the generation
- Separate from the energy itself (states vary)
- Bundled – sell with energy; Unbundled – sell separate from energy
- Buyers “offset” emissions from actual energy consumption, Sellers generate revenue
- Can be certified to avoid double counting; Green-e, etc.
- Regions and states vary in specific requirements but generally align with:
 - Renewable Portfolio Standard (RPS) – physical source of electricity must be renewable
 - Clean Electricity Standard (CES) – broader clean definition & market-based credit trading allowed

States with RPS and CES Targets*



Nominal RPS Target		CES Target
100%+	25-49%	100% CES
75-99%	<25%	
50-74%		

*Source: Berkley National Laboratory US State Renewables Portfolio & Clean Electricity Standards: 2023 Status Update

Solar Projects Fulfill Key Member Objectives

Selling RECs Elsewhere Reflects Transfer of Rights

- Solar Projects
 - (i) meet customer desires for lower cost solar,
 - (ii) support CO₂ emissions reductions goals
 - (iii) enable retail customer subscription programs,
 - (iv) provide diversity to natural gas price volatility
- REC sales would bring revenue but would preclude ***items (i), (ii), & (iii) for MWh sold*****
- ***Solar subscription sales preclude REC sales***
- ***Would impact historical metrics/reporting and could impact customer expectations***
- ***Revenue potential should be carefully weighed against rights being given up***



****Changes in lbs./MWh of historical emissions driven from need to place physical energy in “Other” category and inability to allow retail customers to subscribe if RECs are sold elsewhere are key risks.**

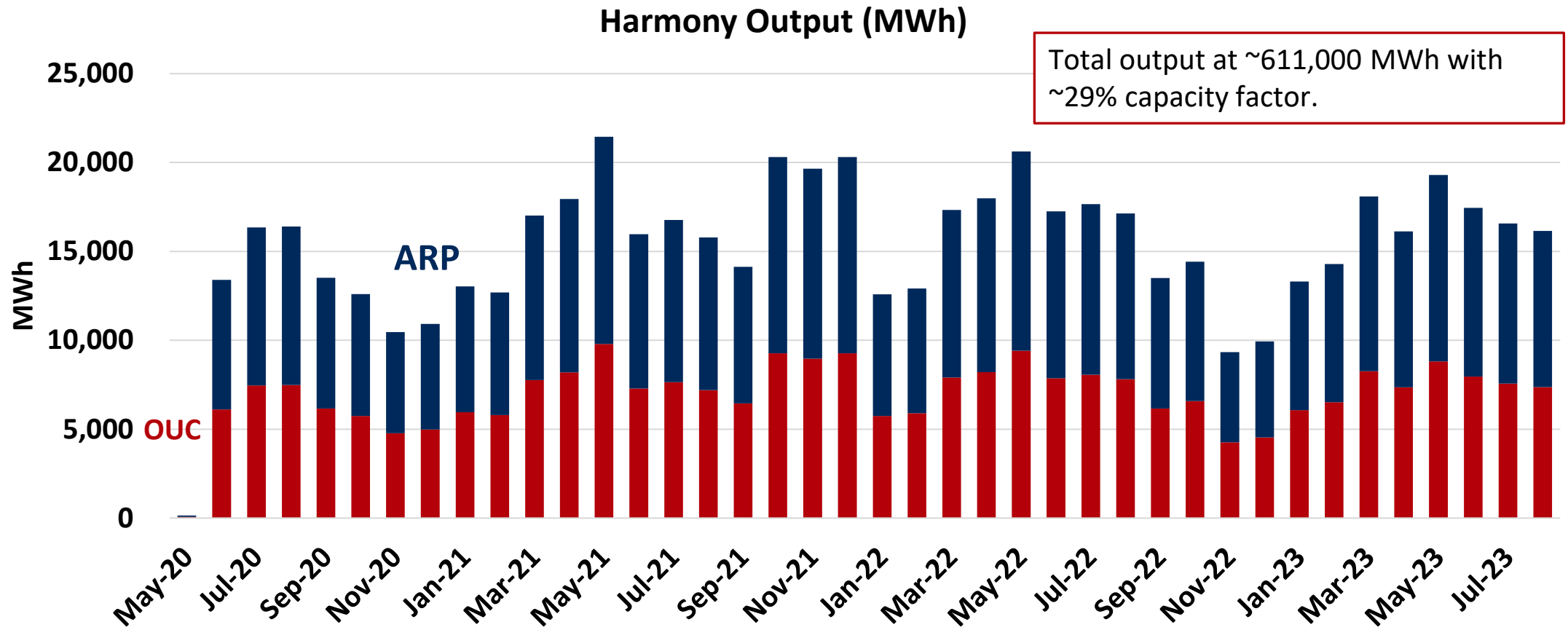
RECs Being Generated Likely Have Market Value

Voluntary Market Has Mechanisms to Monetize

- Harmony now online and generating renewable energy, including Renewable Energy Certificates (RECs)
- RECs distinguished from the actual energy delivered to serve load (“renewable attributes”)
- ARP Phase 3 RECs can be managed as a whole, or energy-ratio share allocated for flexibility to support Member needs related to current and potential future solar subscription programs or other rights
- FMPA seeking feedback on pursuing REC revenue, which needs to be Member/Customer driven and include carve-outs if desired to support subscription programs/avoid double counting
 - Brokerages exist to support finding buyers and sellers in voluntary market, with admin/transaction fees per REC/MWh
 - Certification process exists to support avoidance of double counting - increases complexity, costs and potentially value
- Certain Risks and Management Issues Suggest Tempered Approach to Sales If Desired– 12-month Blocks For Prior Period MWhs
 - Limits on term help avoid excessive sale of attributes that may be needed for climate/regulatory compliance
 - Solar subscription energy can be removed from “bank” of MWhs available for sale
- Since Harmony tethered to ARP, ARP can support initial/up-front costs with revenue netting to others

Harmony Generated ~332,000 MWh To Date for ARP

Additional Revenue Possible Through Sale of PV “Attributes”



Currently Three Groups of REC Holders

Only Two Groups w/ Operational Solar, Additional Online Soon

Existing Solar – Phase I Harmony

**Non-
ARP**

- OUC

**Individual
ARP**

- Fort Pierce
- Jacksonville Beach
- Keys
- KUA
- Ocala

Future Solar – Phases II & III

Non- ARP

- OUC
- Homestead
- JEA
- Lake Worth Beach
- Mt. Dora
- New Smyrna Beach
- Winter Park

**Individual
ARP**

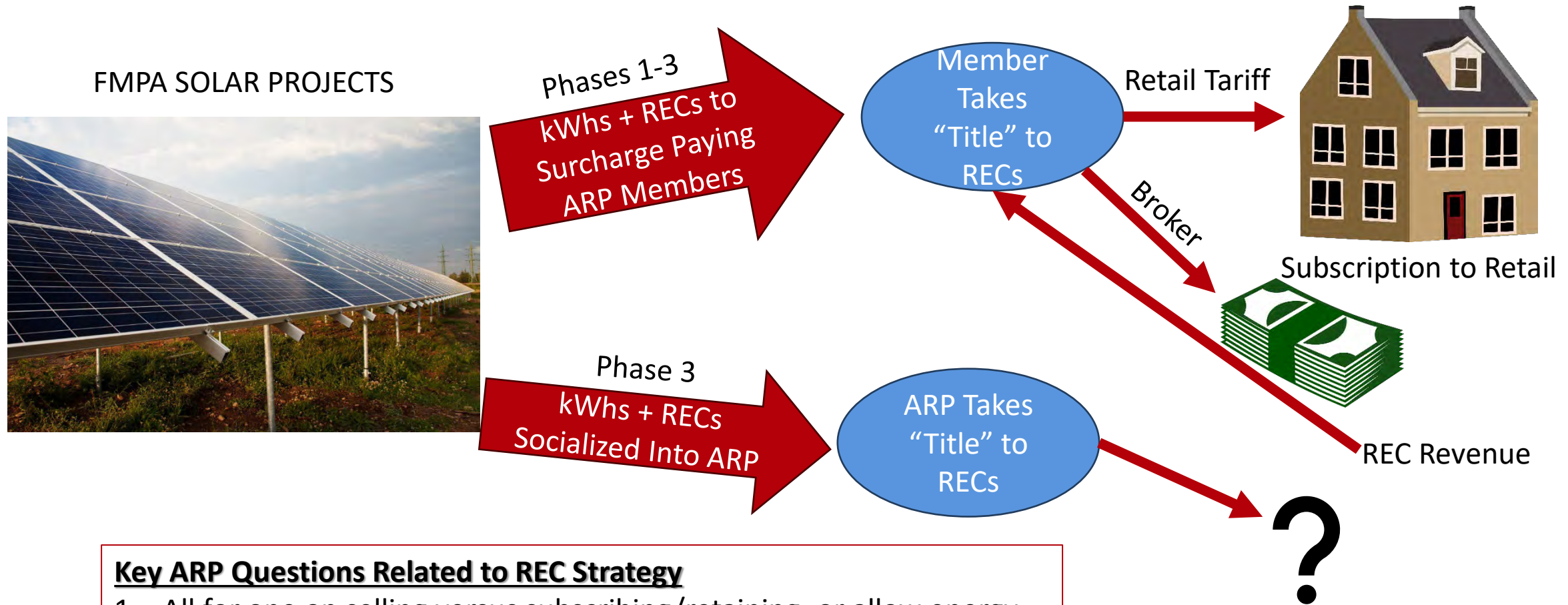
- Fort Pierce
- Jacksonville Beach
- Havana
- Keys
- KUA
- Leesburg
- Newberry
- Ocala

**ARP as
Whole**

- Seeking feedback on allocation approach for REC strategy

ARP Socialized RECs Require Resolution Path

Solar Surcharge RECs Already Being Subscribed At Retail



Key ARP Questions Related to REC Strategy

1. All for one on selling versus subscribing/retaining, or allow energy-ratio share by Participant to flow as Participant wants?
2. How to manage/broker RECs and paperwork ("REC retirement").

FMPA Solar RECs Viable in Voluntary Market

Localized Requirements Limit Participation Outside Region¹

- RECs were developed to spur renewable development within a state; most states require RECs from local development
- Some states allow RECs from adjacent states or within interconnection region or regional REC tracking system
- Tiers vary state to state based on renewable goals and current availability of resources.
- Prices determined by:
 - Alternative Compliance Payment prices
 - Quantity of credits required for compliance vs. current credits available
 - Tier – level of cleanliness of generation

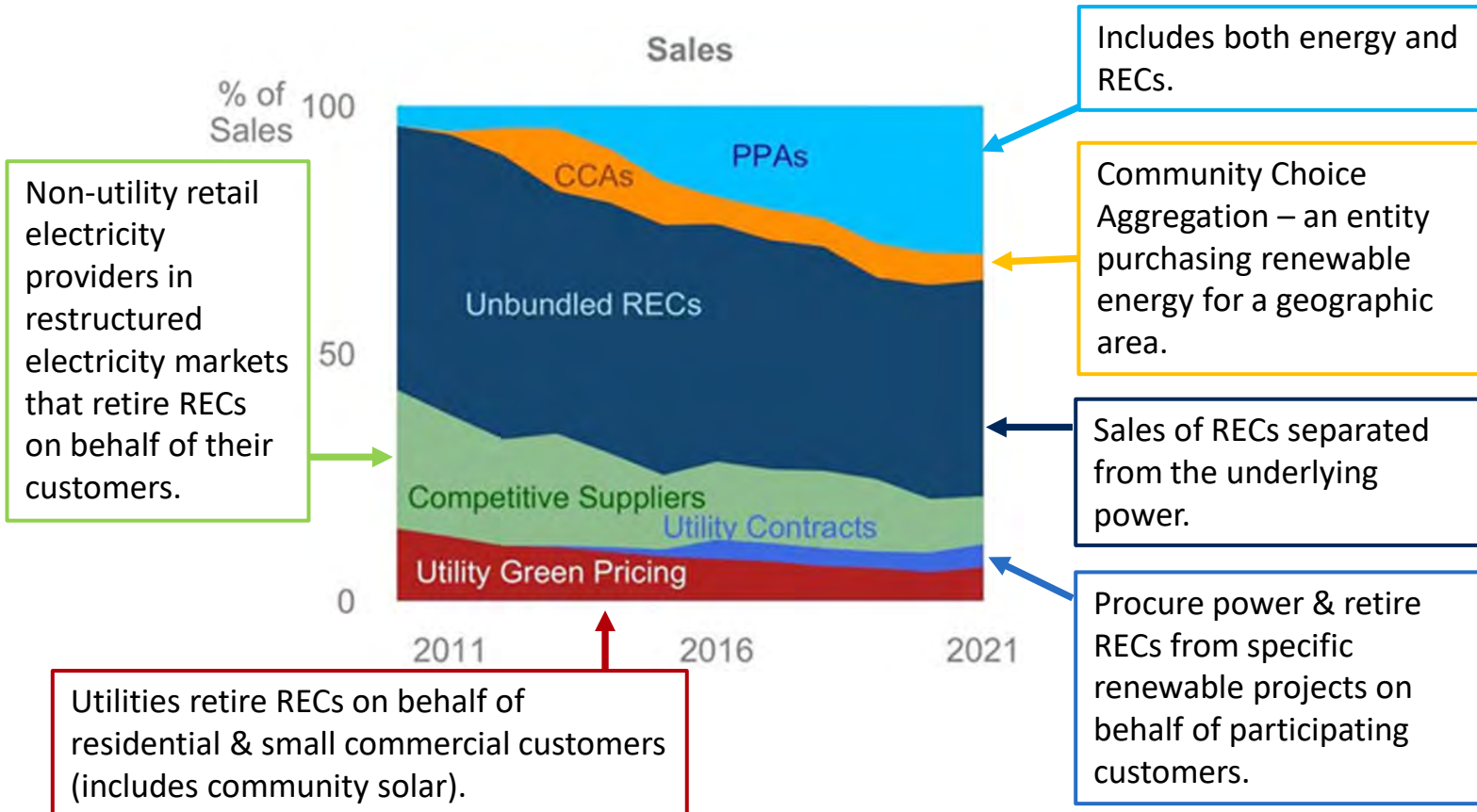
High Level Sampling of REC Classes ²

REC Class/Tier	Description / Generation Applicability
SREC	Only Solar Resources
Class I or Tier I Renewable Energy Sources	Cleaner forms of energy: Solar, Wind, Fuel cells powered by renewable sources, geothermal technology, wave/tidal action, landfill gas or biomass, instate hydro, etc.
Class II or Tier II Sources	Not as clean energy: Some thermal resources, resource recovery facilities, Small hydro, biomass
Voluntary	<i>For states without organized markets and/or to support CES (RPS is physical). Opportunities include selling to private companies.</i>

Overall Voluntary Market Sales Continue to Increase

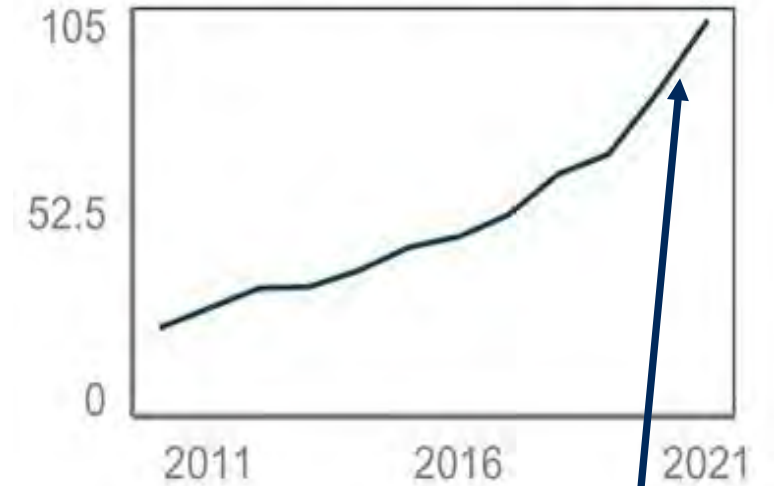
Unbundled RECs Are ~40% Market Sales, 23% Growth '20-'21

All Green Power Sales (6 Products) by Type¹



FMPA Can Sell Unbundled RECs

Sales of Unbundled RECs (million MWh)¹



23% Growth 2020 – 2021

OUC's Current Approach Reflects Cycle of Approvals

Sequencing Based on 12-Month Cycle of Tracking & Sales

Initial Setup and Fees

- Certify Site and Register w/ North American Renewables Registry (NAR)
- Designation of Responsible Party required, ensures PPA off-taker has title to RECs
- NAR Setup Fee \$1,000 (asset >10 MW)
- Registration Fee \$250/account
- Center for Resource Solutions (CRS) \$150 /asset (supplemental registration for buyer comfort)

Beginning of Cycle - 12 Mo.

- Generation Period Total
- Pay annual subscription fees \$2,000**

REC Sale

- Broker matches REC to a buyer
- Broker transfers RECs to buyer
- Exchange of money

Broker(s) Interaction

- Determines Market Price / REC
- Broker Fee ~2% (OUC not charged)
- NAR issuance fee (3 ¢ / REC)

Approval of Sale

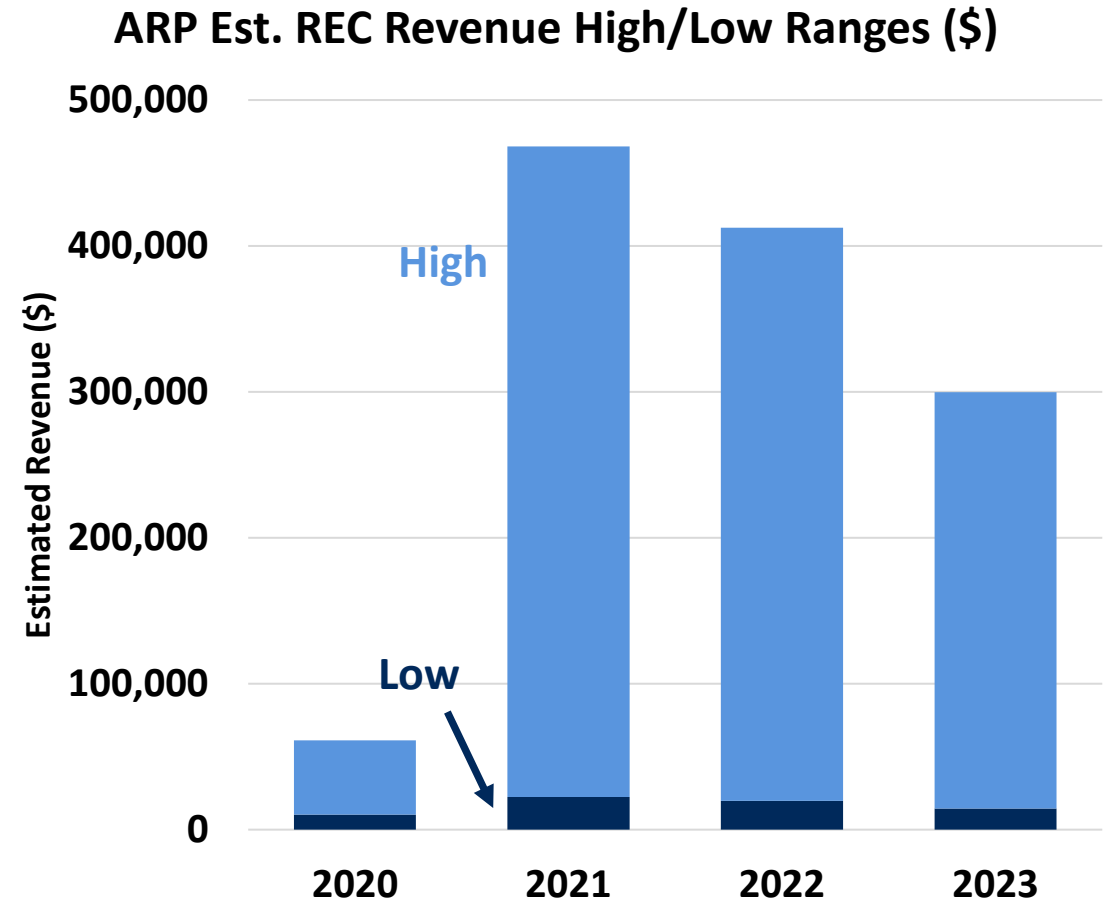
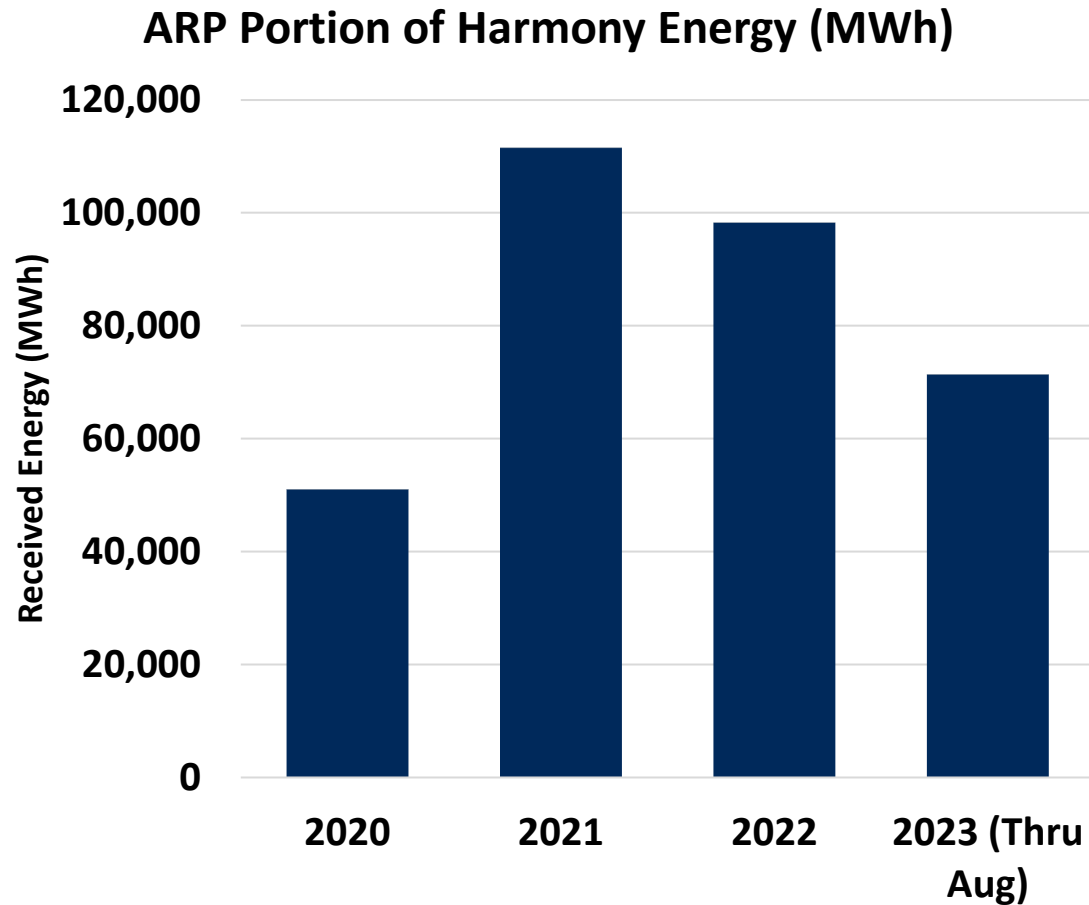
- Member's Committee approves RECs to sell

Green-e Certification

- OUC does not currently do
- REC owner or Purchaser could do
- Prevent double count, allow retiring

ARP Harmony REC Revenue Range ~\$0.20 - \$4/MWh

Voluntary Market Possible Conversion of ~332 GWh To Date¹



1 – Prices have ranged from \$0.20 to \$4.00 /REC in the voluntary market over the last 3 – 4 years. (Sources: OUC feedback and S&P Global, Dec. 2022, “US Renewable Energy Credit Market Size to Double to \$26 Billion by 2030”)

Fees for North American Renewables Registry Limited

Applicable Registration, Annual and Transactions Fees

- **Registration Fee** - A one-time fee (per asset) at the time that user registers a generating asset, energy efficiency asset and/or opens an Account in the registry. Fee will be based upon the size of the asset and the type of account(s) opened. (**Asset: \$1,000 for >10 MW, Account: \$250**)
- **Subscription Fee** – An annual fee, payable at the time that user registers in the registry and in January of each subsequent calendar year. Based upon the size of the asset registered and the type of account maintained. User pays for each asset registered (not pro-rated). (**\$2,000/year for >10 MW**)
- **Volumetric Fees:**
 - **Issuance Fee** – A fee for each Certificate issued in the registry for each project. (**\$0.03/REC**)
 - **Transfer Fee** – A fee for each Certificate transferred to one of account holder’s accounts. This includes Certificate transfers from other REC registries. (**\$0.01/REC**)¹
 - **Retirement Fee** – A Fee for each Certificate retired in one of account holder’s accounts in the registry. (**\$0.03/REC**)¹
 - **Export Fee** – A fee for each Certificate exported to another REC registry. (**\$0.03/REC**)¹

FMPA Can Manage Harmony RECs If Desired*

Strategy Can Evolve with Additions of Phase II & III Solar

- FMPA can pursue revenue for REC sales of Harmony & Phase II & III MWhs
 - Need feedback on all participants approach vs. individual Member preferences
 - Generally, follow the NAR/OUC sequence with broker-driven engagements
 - Will require master agreements with brokers
 - Higher-end certification (e.g., Green-e) currently not a hindrance to sales
- Future phases will require decision on ARP socialized RECs, which can be (i) allocated to individual ARP Participants based on energy-ratio share or (ii) pursued as a single bundle
 - Ratio-share approach can support carve-outs for solar subscription programs
 - Retail customer preferences for REC retirement and tracking can be managed at the Participant level as customer desires dictate
- ***Any potential sales would reflect significant rights transfer that may be at odds with original Solar Project key objectives as discussed earlier***

Limit Term of REC Sale to 12-Mo. Blocks

Limiting Term of Sale Best Strategy to Reduce Potential Risk

- Limiting term of sale to 12-month blocks reduces risk exposure to regulatory uncertainty (e.g., renewable portfolio standard, clean energy standard, or other unforeseen federal mandates)
 - Markets have varying time windows for when RECs can be sold for others to retire – requires further exploration with viable buy-side alternatives in voluntary market
- Can allow for evolving approach if desire exists to pursue assignment of RECs in solar subscription program to avoid double counting
- No market clarity on whether generation portfolio “mix” calculations are impacted by REC sales* – limiting term allows for quick adjustments if needed to support definitional changes (since RECs are sold for prior periods with records/tracking of energy generated)

*Recent FMPA broker discussion reinforced concept of full rights transfer, which includes title to the zero carbon emitting components of energy physically delivered in prior periods.

Next Steps Require Feedback

Seeking Guidance on Whether to Pursue Further

- REC sales provide revenue but reflect significant rights transfer that impacts metrics
- Should we pursue further across all Participants or by Participant? How will ARP Phase 3 solar be bundled, if at all?
- Fees and expenses initially limited to ARP for Harmony; future facility-specific fees can be collected once operational from appropriate Participants (if applicable net of REC revenue)
- If REC revenue is obtained, will need to determine refund or pass-through approach as compared to buildup of reserves
- Should REC retirement and/or tracking be pursued for subscription MWhs and if so, is it preferable to have that be managed at the individual Member/customer level?
 - Customer concerns at Member level have been limited but official retirement can support certain customers



Appendix A – Additional REC Market Reference Materials

Fees for North American Renewables Registry

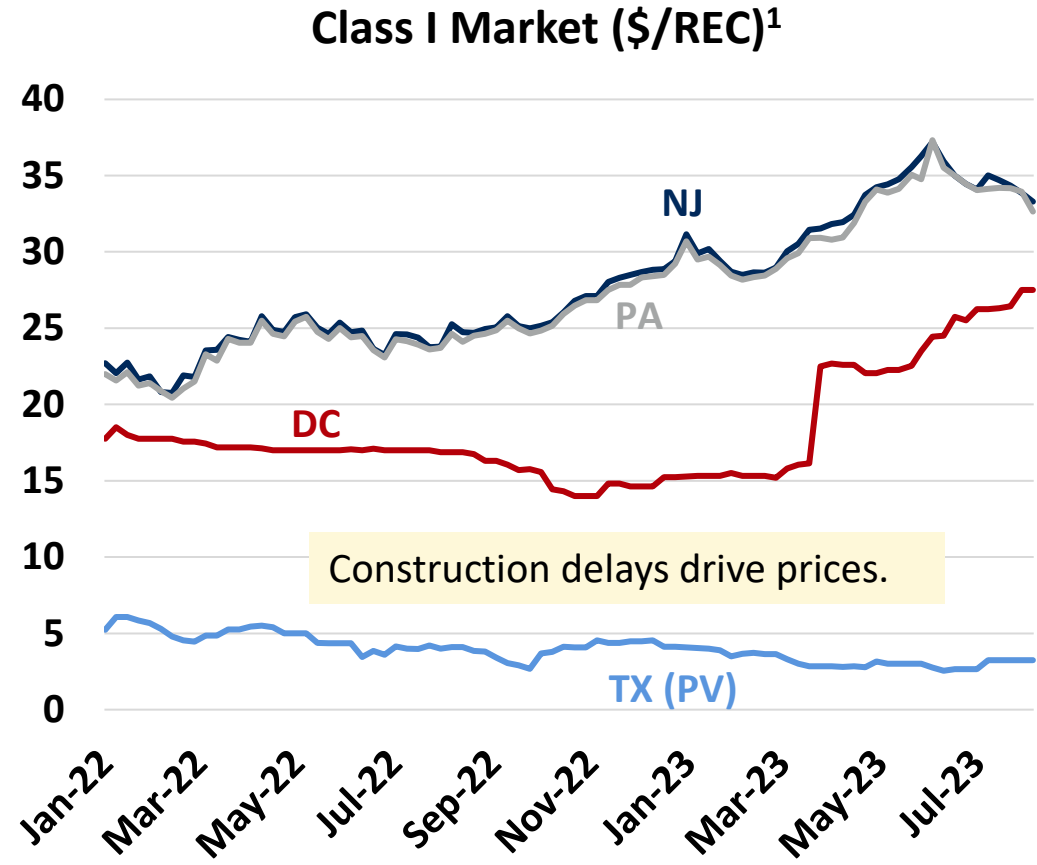
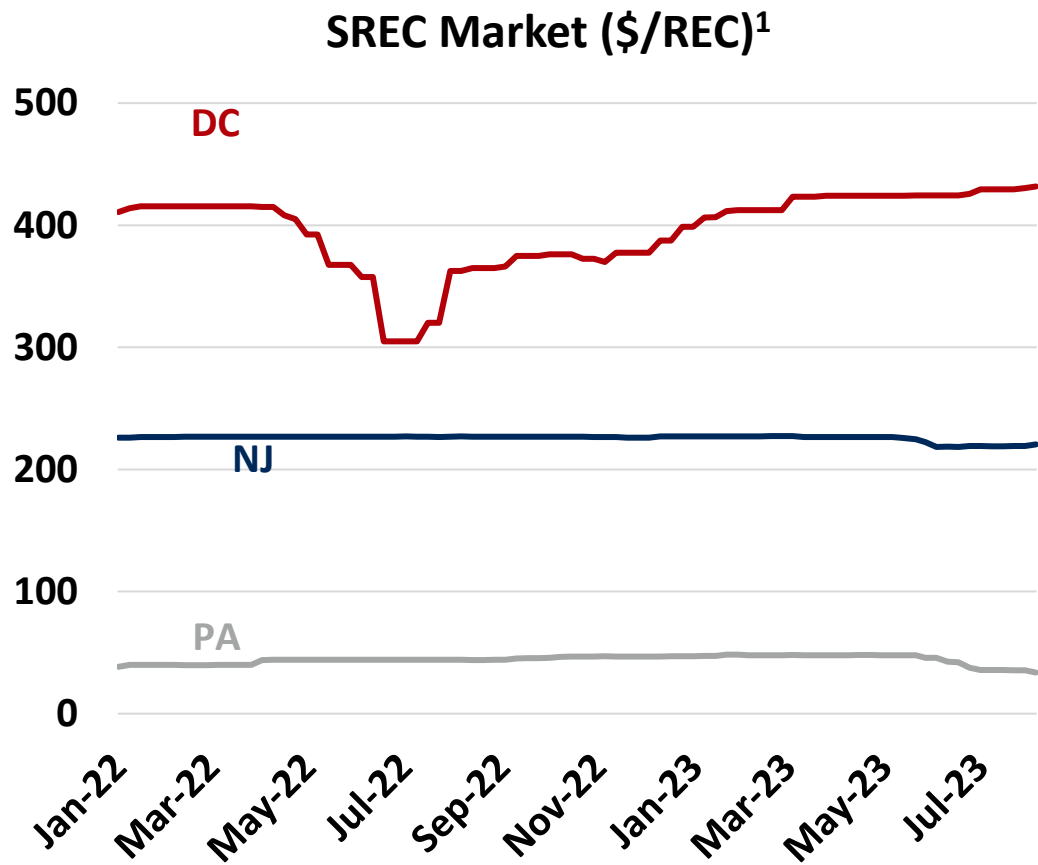
Fee Schedule: Type	Size	Registration (\$)	Subscription (\$)	Volumetric Fee	\$ / Certificate
Account: Project		250	0	Issuance	0.03
Account: General		750	2,000	Transfer	0.01
Account: Retail Purchaser		0	1,000	Retirement	0.03
Account: Qualified Reporting Entity		0	0	Export	0.03
Asset: Micro Generator	<40 kW	0	50	Import	0.01
Asset: Small Generator	40 kW to < 1 MW	250	500		
Asset: Medium Generator	1 MW to < 10 MW	500	1,000		
Asset: Large Generator	> 10 MW	1,000	2,000		
Asset: Energy Efficiency Project	Any	500	1,000		

Voluntary Market Products

Green Market Power Market Products	Description
Power purchase agreements (PPA)	Sales through direct contracts between renewable energy projects and buyers which include both power and RECs.
Community choice aggregation (CCA)	A legal entity formed to procure power on behalf of a defined geographic area (some on behalf of their customers).
Unbundled RECs	Sales of RECs separated from the underlying power.
Competitive suppliers	Non-utility retail electricity suppliers in restructured electricity markets that retire RECs on behalf of their customers
Utility renewable contracts	Utilities procure power and retire RECs from specific renewable energy projects on behalf of customers who participate on a contractual basis
Utility Green Pricing	Utilities retire RECs on behalf of residential & small commercial customers (incl. community solar)

Cleanest Resources & Higher Demand Drive Prices

All Organized Markets Have Interconnection Requirements

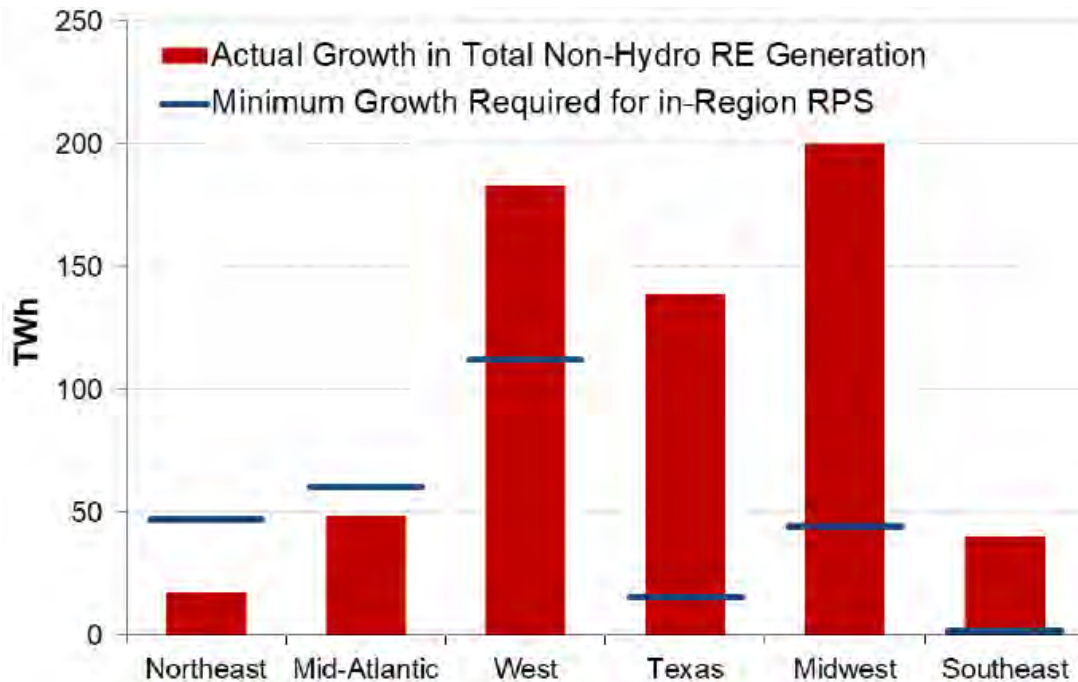


State Policy Changes May Impact Future Prices

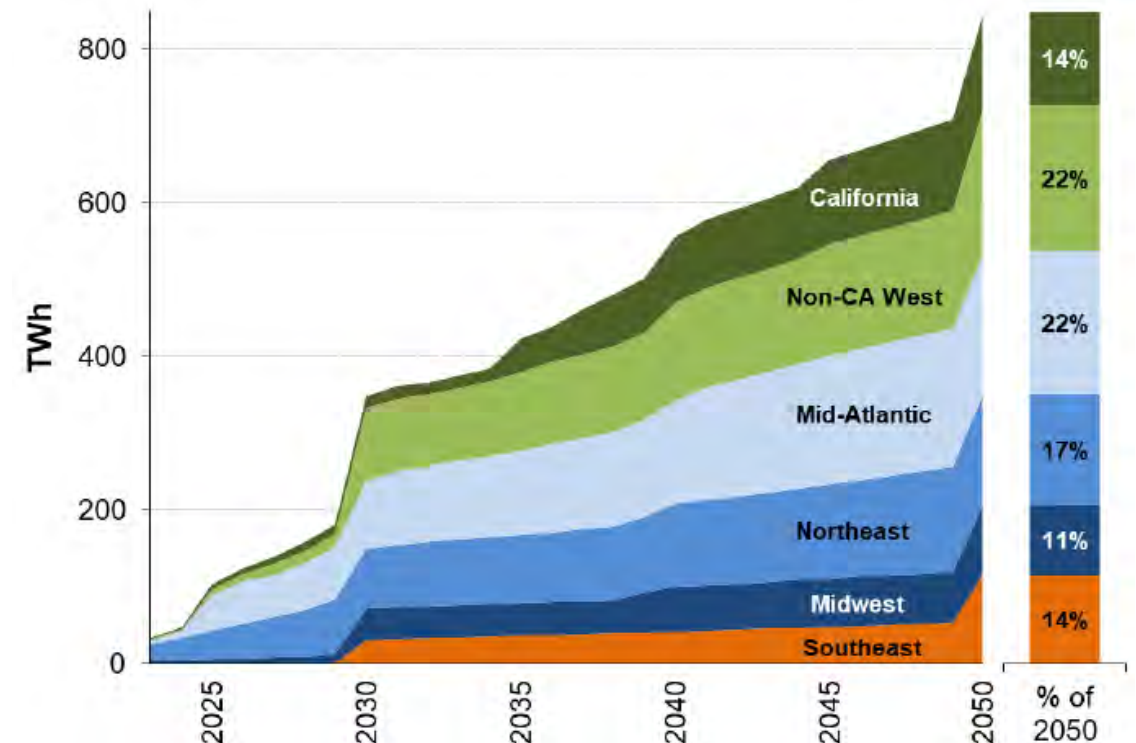
Some States Have Made Changes to RPS & CES Policy¹

Interconnectivity (state & regional siting/source requirements) drive REC pricing & participation eligibility.

**Growth in Non-Hydro Renewable Generation:
2000-2022 (TWh)**



New Renewable Portfolio Standard (RPS) + Clean Energy Standard (CES) Supply Needs (TWh)



Estimated Participant Revenue w/Voluntary Market

Reflects Harmony Output To Date As of August 2023

Member	Total Harmony Output As of Aug 2023 (MWh)	Low Range Revenue (\$)	High Range Revenue (\$)
FPUA	17,172	\$3,434	\$60,778
Beaches	57,241	\$11,448	\$202,592
Keys	28,620	\$5,724	\$101,296
KUA	171,722	\$34,344	\$607,776
Ocala	57,241	\$11,448	\$202,592

Historical Prices

- Historically prices ranged from \$0.31/MWh to \$0.71/MWh.¹
- Prices averaged ~\$3.00 - \$4.00 in 2021-23.^{2,3}
- Broker arrangement likely required to pursue viable buyers.

1 – <https://www.epa.gov/green-power-markets/us-renewable-electricity-market>

2 – <https://www.spglobal.com/marketintelligence/en/news-insights/research/us-renewable-energy-credit-market-size-to-double-to-26-billion-by-2030>

3 – Recent OUC transactions

Phase II & III Projected Revenue w/Voluntary Market

Annual Revenue Assuming a Projected 28% Capacity Factor

Member	Single Year Phase II & III Output (MWh)	Single Year Low Range Revenue (\$0.20/REC) (\$)	Single Year High Range Revenue (\$4.00/REC) (\$)
Beaches	36,792	\$7,358	\$147,168
FPUA	36,792	\$7,358	\$147,168
Havana	613	\$123	\$2,453
Homestead	36,792	\$7,358	\$147,168
JEA	342,901	\$68,580	\$1,371,606
KEYS	92,225	\$18,445	\$368,901
KUA	49,056	\$9,811	\$196,224
Leesburg	24,528	\$4,906	\$98,112
Lake Worth	146,923	\$29,385	\$587,691
Mount Dora	4,906	\$981	\$19,622
New Smyrna	24,528	\$4,906	\$98,112
Newberry	2,453	\$491	\$9,811
Ocala	56,414	\$11,283	\$225,658
Winter Park	73,584	\$14,717	\$294,336
ARP Whole	173,781	\$34,756	\$695,124



Appendix B – PJM REC Market Sample Requirements

RPS States In PJM Have Relatively Mature REC Market

Northeast Subregion is Highly Diverse

- PJM states are an interconnected area that coordinates the movement of electricity through all or parts of:
 - Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey
 - North Carolina, Ohio, Pennsylvania, Tennessee
 - Virginia, West Virginia, District of Columbia
- Within a given state, REC exchange and requirements highly diverse in terms of eligibility and mechanics

Renewable Portfolio Standards (RPS) Programs

A Comparison of a Subset of the PJM Interconnection

Criterion	New Jersey	Maryland	District of Columbia	Delaware
Renewable Energy Targets (RPS Percentages)	End Year 2032 Solar: 1.1% Tier 1 (includes Solar): 50% Tier 2: 2.5% Total: 52.5%	End Year 2030 Solar: 14.5% Tier 1 (includes Solar): 50% Tier 2: 2.5% Total: 52.5%	End Year 2041 Solar: 10.0% Tier 1 (includes Solar): 100% Tier 2: phased out in 2020 Total: 100%	End Year 2035 Solar: 10% Tier 1 (includes Solar): 40% Tier 2: N/A Total: 40%
Geographic Eligibility	Energy shall be generated within or delivered into the PJM region. If the latter, the Energy must have been generated at a facility that commenced construction on or after January 1, 2003. Solar resources must be connected with distribution grid serving NJ.	Source must be (1) located in the PJM Region or (2) in a control area that is adjacent to the PJM Region, if the electricity is delivered into the PJM Region. Solar resources must be connected with distribution grid serving MD.	Source must be located within the PJM Interconnection region or within a state that is adjacent to the PJM Interconnection region. Effective 3/22/2019, new facilities must be located in PJM. Solar systems approved after 2/1/2011 must be connected to the DC distribution grid.	“Eligible Energy Resources” include energy resources located within or imported into the PJM region. Customer-sited resources must be located in DE.

Renewable Portfolio Standards (RPS) Programs

A Comparison of a Subset of the PJM Interconnection

Criterion	New Jersey	Maryland	District of Columbia	Delaware
Class I or Tier I Renewable Energy Sources	Solar, PV, Wind, Fuel cells powered by renewable sources, geothermal technology, wave/tidal action, landfill gas or biomass, instate hydro	Solar, wind, qualifying biomass, landfill gas, geothermal, ocean, fuel cell powered by methane or biomass, small hydro, poultry litter incineration w/in MD, waste to heat w/in MD	Solar, wind, qualifying biomass, landfill gas, geothermal, ocean, fuel cell from landfill gas or biomass	Solar, wind, ocean, geothermal fuel cell capable of being powered by renewables, landfill gas, small hydro, sustainable biomass
Class II or Tier II Sources	Resource recovery facility, Small hydro	Hydroelectric power other than pump storage generation	Ended at the end of 2019	“New Renewable Generation Resources” are those in commercial operation after 12/31/1997. No more than 1% of each year’s sales may come from resources that aren’t new.

Renewable Portfolio Standards (RPS) Programs

A Comparison of a Subset of the PJM Interconnection

Criterion	New Jersey	Maryland	District of Columbia	Delaware
Banking REC	Class I RECs can be banked for compliance in either of the following two energy years. SRECs can be banked for compliance in either of the following four energy years. Class II RECs cannot be banked.	A Renewable Energy Credit shall exist for 3 years from the date created.	A Renewable Energy Credit shall exist for 3 years from the date created. Effective April 2019, Solar RECs have a lifespan of 5 years.	An unused renewable energy credit shall exist for 3 years from the date created.
Alternative Compliance Payment (ACP)	Class I & II (ACP) - \$50/MWh Solar (SACP) – \$308/MWh in 2018, \$268/MWh in 2019, declining by \$10/MWh each year thereafter.	Tier 1 - \$40/MWh <= 2016, \$37.50 in 2017-18, \$30 in 2019-23, declining to \$22.35 in 2030 Tier 2 - \$15/MWh Solar – \$350/MWh in 2015, declining until 2030, \$22.50 thereafter	Tier 1 - \$50/MWh Tier 2 - \$10/MWh Solar - \$500/MWh in 2011 thru 2023, \$400 in 2024-28, \$300 in 2029-41, and \$100 in 2042 and thereafter	Non-solar ACP is \$25/MWh. Solar ACP is \$150/MWh.
Beneficiary of ACP	ACPs fund renewable energy projects through the Clean Energy Program. SACPs will be refunded to ratepayers as a result of A.B. 3520.	MD Strategic Energy Investment Fund, to be used to support the creation of Tier 1 and solar resources in the state.	DC Renewable Energy Development Fund, to be used to support the creation of new solar sources in the District.	Delaware Green Energy Fund