

# Agricultural Technical Working Group (A-TWG)

December 14, 2023



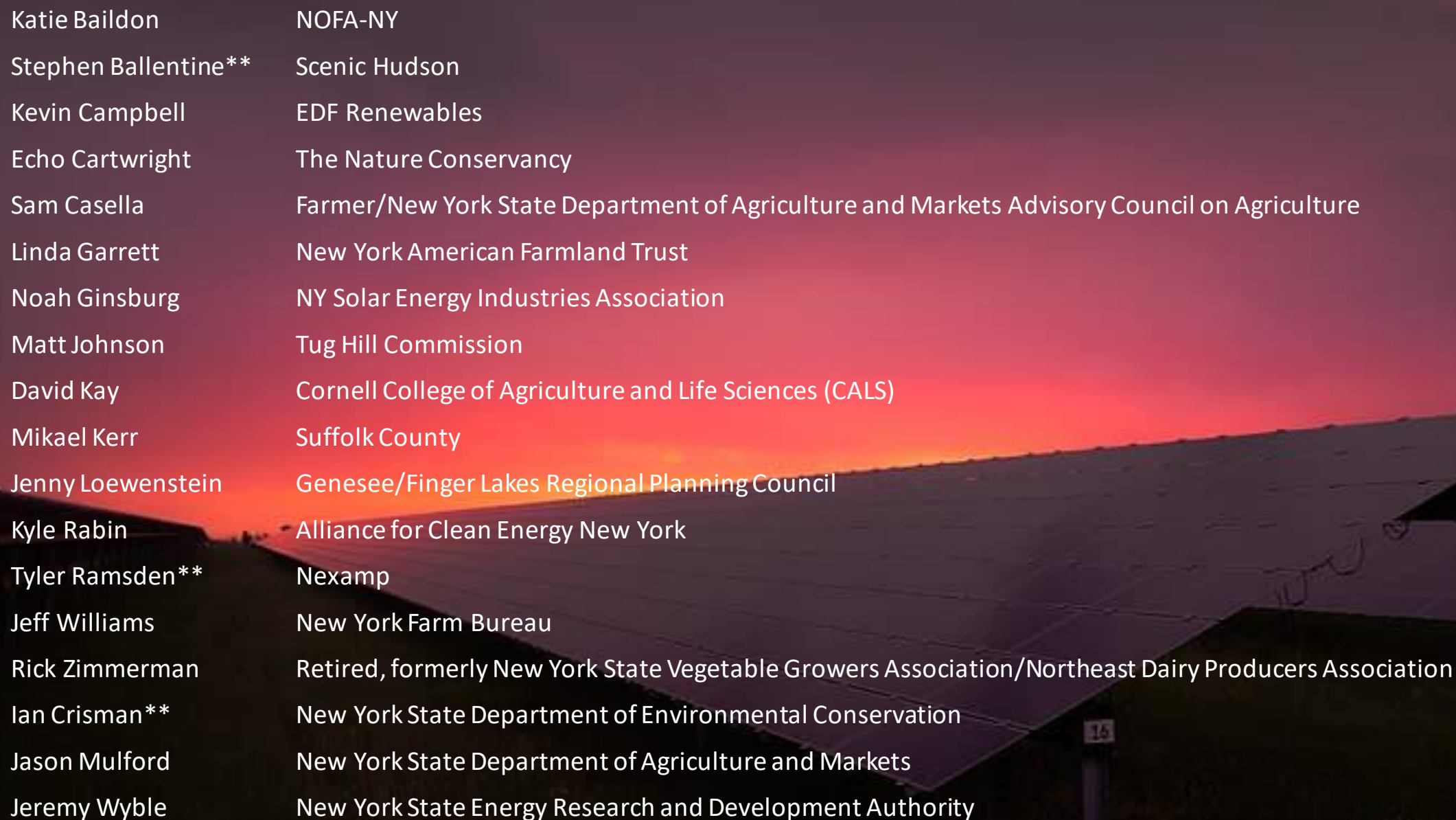
# Meeting Agenda

- **9:00 Welcome**
- **9:20 Specialist committee updates**
  - Agrivoltaics
  - Smart Solar Scorecard
  - RAISE
- **10:20 NYSERDA programmatic updates**
  - Solar siting research: environmental impacts and opportunities
  - RFI for Agrivoltaics Research and Demonstration RFP – update on responses
  - LSR RFP updates
  - Q&A and discussion
- **11:15 A-TWG 2024 workplan**
- **11:30 Open discussion and relevant updates**
- **11:45 Member updates, announcements, and next steps**
- **12:00 Adjourn**

# Membership protocol

> **Any feedback or suggested edits?**

# A-TWG Members

The background of the slide is a photograph of a solar farm at sunset. The sky is a gradient of orange, red, and purple. In the foreground, the silhouettes of solar panels and their mounting structures are visible against the bright horizon.

Katie Baidon	NOFA-NY
Stephen Ballentine**	Scenic Hudson
Kevin Campbell	EDF Renewables
Echo Cartwright	The Nature Conservancy
Sam Casella	Farmer/New York State Department of Agriculture and Markets Advisory Council on Agriculture
Linda Garrett	New York American Farmland Trust
Noah Ginsburg	NY Solar Energy Industries Association
Matt Johnson	Tug Hill Commission
David Kay	Cornell College of Agriculture and Life Sciences (CALIS)
Mikael Kerr	Suffolk County
Jenny Loewenstein	Genesee/Finger Lakes Regional Planning Council
Kyle Rabin	Alliance for Clean Energy New York
Tyler Ramsden**	Nexamp
Jeff Williams	New York Farm Bureau
Rick Zimmerman	Retired, formerly New York State Vegetable Growers Association/Northeast Dairy Producers Association
Ian Crisman**	New York State Department of Environmental Conservation
Jason Mulford	New York State Department of Agriculture and Markets
Jeremy Wyble	New York State Energy Research and Development Authority

# A-TWG Members (Other NYS Representatives)

**Bram Peterson**

**NYSERDA – LSR**

**Candace Rossi**

**NYSERDA – NY Sun**

**Jeremy Magliaro**

**NYSERDA – Environmental Research**

**Caitlin Frame**

**NYSERDA – Environmental Research**

**Jen Manierre**

**NYSERDA -- Clean Energy Siting**

**Jessica Zweig**

**NYSERDA – Industrial & Agriculture**

# Specialist Committee Updates and 2023 Milestones

- **Agrivoltaics**
- **Solar Siting Scorecard**
- **RAISE**

# Agrivoltaics Specialist Committee Update

**Key Accomplishments of 2023  
Priorities & Schedule for 2024**

# AGV-SC Key 2023 Accomplishments

- Established AGV Definition for the purpose of the SC
- Preliminary evaluation of solar design parameters and efficiency impacts
- Benefitted from internal and external expertise on a range of topics:
  - James McCall, **NREL** - 5 Cs of Agrivoltaic Success Factors & preliminary AGV capital & operating cost estimates
  - Ethan Winter, **AFT** – Principles of Smart Solar Siting
  - Darren Suarez, **Boralex** – Beyond Renewable Energy
  - Ray Dykeman, **NYS dairy farmer** - AGV & Dairy Farming
  - Jesse Robertson-Dubois, **Bluewave** – Dual-Use, Adaptive & Ag-Ready Agrivoltaics at Distributed-Generation Scale
  - Jared McGrath & Michael Cucchiara, **Nexamp** – Solar Sheep Grazing: A Developer’s Experience
  - Lewis Fox & Nick Armentrout, **Agrivoltaic Solutions** – Grazing-ready Solar in New York State
  - Jared Buono, **Cornell Hudson Valley Research Lab** & Chuck Schwartz, **NYS Solar** – AGV for Orchards & Specialty Crops: Experience and Potential in NYS
  - Jason Mulford, **NYSAGM** - NYS Agricultural Assessment program
  - Anne Sapienza, **Former Tax Assessor** – Review of the NYS Agricultural Ceilings Program, and Kevin Campbell, **EDF Renewables** – Example of ag assessment impact for developers
- [Growing Agrivoltaics in New York State](#) – AGV Report



# AGV-SC Key 2024 priorities and tentative timing\*

- **Considerations for solar ready grazing** for sheep (Q1-Q2 2024)
- **Tax guidance** – support continued discussion on agricultural assessment and align on deliverable (Q1-Q2).
- **Engagement** – support early-stage discussions between farmers and developers (i.e., at land acquisition stage). Support NYSERDA Solar Guidebook (Q1).
- **Design/Cost considerations** – continue to track research and determine strategy to improve understanding and share content (Q3).
- **Ongoing monitoring** – continue to track relevant research, projects, regulations, and policies and provide updates at each SC meeting (Q1-Q4).
- **Cattle solutions** – expand exploration to non-dairy grazing (Q2-Q3).

# Solar Scorecard Specialist Committee Update

**2022 Scorecard Analysis**

**Key Accomplishments of 2023**

**Priorities & Schedule for 2024**

# 2022 Scorecard Analysis of Unique Solar Facilities Submitted

## > **Ag Avoidance**

- Full Points = 2 Projects
- Partial Points = 5 Projects
- No Points = 16<sup>^</sup>

<sup>^</sup>9 of these 16 projects gained 63% or more of the available co-use points

## > **Scorecard Points for projects in NY**

- Average score = 74
- Scores ranged from 25 to 103 (out of 160)
- Co-use:
  - Pollinators & Apiaries: 13 projects committed to this strategy
  - Grazing: 7 projects elected at least half of the available grazing points
  - Crop Production: 10 projects elected at least half of the available crop points

## **Forest Avoidance**

- Full Points = 14
- Partial Points = 6
- No Points = 3

# Key accomplishments in 2023

- > **Adapted and strengthened dual use incentives**
  - Facilitate awarding points for the simultaneous incorporation of multiple dual use types
  - Points prorated according to portion of Facility Area (FA) in dual use to encourage maximal coverage of site
  - Offer flexibility to recognize innovation and new approaches
- > **Further developed the forested lands protection section, incorporating desktop modeling and paving the way for additional field verification**
- > **Improved guidance for community engagement and collaboration**
- > **Expanded resources section to provide more specific guidance and best practices examples**

The 2023 Scorecard was incorporated in [RESRFP23-1](#)

**Table 2: Prorating Points for Multiple Co-Utilization Types**

Co-Utilization Type	Acres of FA with Co-Utilization Type <sup>I</sup>	FA Acres	Calculated Percentage Amount		Strategy Points Earned <sup>II</sup>		Total Points Earned
Pollinators & Ecosystem Services	_____ Acres	_____ Acres	_____ %	x	_____	=	_____
Livestock and Livestock Products	_____ Acres	_____ Acres	_____ %	x	_____	=	_____
Crop(s) Production	_____ Acres	_____ Acres	_____ %		_____		Points will be assigned by NYSERDA <sup>III</sup>

**Note: NYSERDA will add any points earned for Crop(s) Production to the TOTAL.**

- I Acres of Facility Area (FA) with Co-Utilization should align with the Bid Facility site plan submitted in accordance with the RESRFP23-1 Site Control minimum threshold requirement, Section 4.3.7.
- II Include points earned from Subtotal for each Co-utilization Subsection above.
- III NYSERDA will evaluate the current land use categories (e.g., NLCD categories Cultivated Crops and Pasture/Hay Land, MSGs 1-4) in the FA and the Crop Production plan and scale for each Bid and then assign points. Projects that commit to more extensive crop production Co-Utilization relative to the current acres of crop production will receive greater points for the crop production Co-Utilization strategy. Points will also be relative to percentage of other Bid Submissions % of Crop Production being proposed.

# 2024 Scorecard priorities

- > **Refine approach to transparency and sharing of Scorecards in some form**
- > **Clarify vision for long-term incorporation of ecosystem services into Scorecard**
- > **Integration of field verification into forested lands section**

**Anticipate focused effort in Q1 of 2024 in preparation for 2024 solicitation; opportunity to plan for 2025 in later part of year**

# Regional Agronomic Impacts of Solar Energy (RAISE) Specialist Committee Update

## Priorities for 2024

- **Convene the group**
  - First meeting anticipated for January 2024
  - Members get to know each other and establish group purpose and process
- **Clarify and finalize scope of study**
  - Discuss and refine methodology
  - Flesh out resources and sources of data with advice from group members
  - Conduct literature review
- **Refine and conduct analyses**

# **NYSERDA programmatic updates**

- **Solar siting research: environmental impacts and opportunities – updates from PON 4270 contractors**
- **Agrivoltaics Research and Demonstration RFI**
- **LSR RFP**



# Solar siting research: environmental impacts and opportunities

- > **Mandy Klehr, DNV:** Project Biologist in Environmental and Permitting Services and Master's candidate at University of Massachusetts, Amherst
- > **Max Zhang, Cornell University:** Professor of engineering in the Sibley School of Mechanical and Aerospace Engineering and director of the Cornell Atkinson Center for Sustainability

# Agrivoltaics Research and Demonstration RFI Update

- > **RFI responses were due November 15<sup>th</sup>**
- > **30 responses received**
- > **Synthesis of responses and comments is underway**
- > **Feedback will be incorporated into the RFP in 2024**

# Large-Scale Renewables RFP

## > **RESRFP22-1 resulted in 22 Awards**

- 14 Solar Projects
- 7 Wind Projects
- 1 Hydro

## > **2023 expedited RFP**

- Issued November 30, bids due January 31 '24 in response to Governor's 10-point Action Plan
- All agricultural requirements (Solar Construction Guidelines, Ag. Mitigation Fees) apply
- Section 4.3.5 - Agriculture and Forest Land Protection
  - Smart Solar Siting Scorecard
  - Agricultural Mitigation Payment & option to defer payment in lieu of advancing acceptable ag co-use activities

# A-TWG 2024 Workplanning

# A-TWG Charter Refresher

## II. Mission and Scope of the A-TWG

### Mission

The A-TWG serves as an advisory body to the State of New York and other participating entities, providing advice and guidance to help steer efforts to advance renewable (primarily solar) energy development across scales in a responsible way that supports New York State's agricultural operations, lands, farmers, and communities. The A-TWG will bring together science and socio-economic subject matter expertise to develop collaborative advice, guidelines, strategies, or other products that ensure protection of the State's agricultural land and farm economy while also advancing the State's renewable energy and greenhouse gas emissions reduction goals.

# Tentative 2024 schedule for A-TWG Workstreams

Subject to change:

Workstream	Q1	Q2	Q3	Q4
<b><u>A-TWG:</u></b> <ul style="list-style-type: none"> <li>Quarterly meetings</li> </ul>	<ul style="list-style-type: none"> <li>Review and provide input into RAISE scoping and workplan</li> <li>Review outcomes of ag assessment discussions</li> </ul>	<ul style="list-style-type: none"> <li>Review and provide input into 2024 Scorecard refinements</li> <li>Review milestones and potential recommendations from AGV and RAISE SCs</li> </ul>	<ul style="list-style-type: none"> <li>Continued review and refinement of ideas and potential recommendations generated in SCs</li> </ul>	
<b><u>Agrivoltaics</u></b> <ul style="list-style-type: none"> <li>Meetings every ~6-8 weeks</li> </ul>	<ul style="list-style-type: none"> <li>Ag assessment</li> <li>Support Solar Guidebook refinement</li> </ul>	<ul style="list-style-type: none"> <li>Updates on cattle grazing development</li> </ul>	<ul style="list-style-type: none"> <li>Farmer engagement</li> <li>Continued work on solar design considerations</li> </ul>	<ul style="list-style-type: none"> <li>Continued monitoring and discussion of research, policy development (Q1-4)</li> </ul>
<b><u>Scorecard</u></b> <ul style="list-style-type: none"> <li>Focused meetings in Q1</li> <li>Q2-4 periodic meetings for long-term planning</li> </ul>	<ul style="list-style-type: none"> <li>Develop 2024 Scorecard refinements</li> <li>Transparency and reporting</li> <li>Discussion of approach to ecosystem services in Scorecard</li> <li>Field verification for forestry</li> </ul>	<ul style="list-style-type: none"> <li>Refine 2024 Scorecard as needed</li> <li>Continued ES discussions as appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Review 2023 Scorecards</li> <li>Discussion of enhancements or improvements for future years' scorecards</li> </ul>	<ul style="list-style-type: none"> <li>Developing options and priorities for 2025 Scorecard</li> </ul>
<b><u>RAISE</u></b> <ul style="list-style-type: none"> <li>Meetings every ~6 weeks</li> </ul>	<ul style="list-style-type: none"> <li>Convene committee</li> <li>Clarify and finalize scope of study</li> <li>Conduct literature review</li> <li>Identify data sources</li> </ul>	<ul style="list-style-type: none"> <li>Refine study methodology</li> <li>Conduct analyses and review/refine with SC</li> </ul>	<ul style="list-style-type: none"> <li>Continued analysis and refinement</li> </ul>	<ul style="list-style-type: none"> <li>Review study outcomes, plan next steps</li> </ul>

# Dialogue and Exchange of Perspectives

Opportunity to

- share perspectives on changes and advances in the field, for the purposes of increasing awareness among A-TWG members
- facilitate mutual understanding through discussion and exchange of views

- **Look for Specialist Committee scheduling for 2024 Q1 coming soon**
- **Next A-TWG meeting planned for early Spring**
- **Slides from this meeting will be available online**

**Thank you all for your contributions this year! See you in 2024.**

***Next steps***

