



# 2025 POWER Global Community Summit Summary Report



**About POWER:** The Prediction of Worldwide Energy Resources (POWER) project, a cornerstone of the Energy Resources element of NASA Earth Action Program, focuses on improving the public and private capability for integrating NASA Earth observations and research into energy, infrastructure, and agroclimatology related decisions. POWER provides NASA's freely available, trusted low-latency solar and meteorological datasets, community specific derived data parameters, geospatial web data services, and a variety of analytical tools to its user communities. These datasets have global coverage and span across a long time period temporally. POWER distributes data in several formats with a large variety of openly available accessibility options, making them application ready data that enable critical energy and agricultural decisions worldwide.

# NASA Prediction of Worldwide Energy Resources (POWER) Project

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## Executive Summary

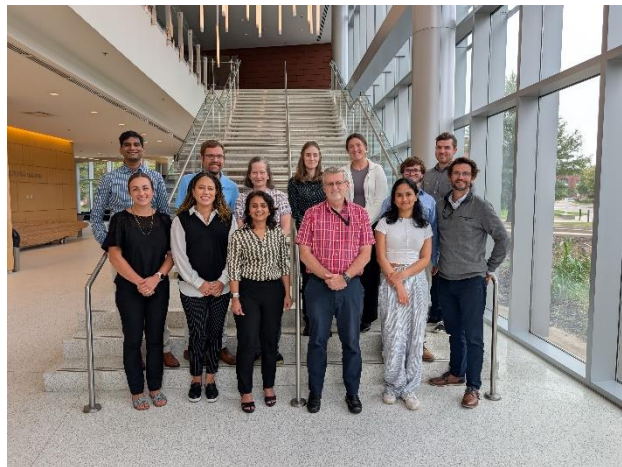
The Prediction of Worldwide Energy Resources (POWER) project hosted its fourth annual virtual Global Community (GloCo) Summit on September 9-10, 2025, marking the 28th year of providing global solar and meteorology data products to the world. The goals of this event were to inform users of new and enhanced features, gather feedback on services, identify new requests and requirements, and capture more thorough user stories while identifying new user communities and partnership opportunities.

The 2025 summit had 231 registrants representing 51 countries and was attended by 89 unique participants over the two days.

To begin the summit, Senior Research Scientist Dr. Paul Stackhouse, who serves as the principal investigator of NASA POWER, provided opening remarks and an overview of the project. This was followed by a presentation discussing POWER's journey and roadmap, along with a technical showcase highlighting new enhancements and future initiatives to improve user experience.

This 2025 summit featured two speakers, Dr. Charon Birkett from NASA's Goddard Space Flight Center and Daniel Villa with Sandia National Laboratories, who gave in-depth presentations on POWER's new dataset for the hydropower community and utility of POWER data in off-grid locations, respectively. Dr. Birkett shared information on the Global Water Measurements (GWM) system, which was recently integrated into POWER's data catalog to provide information related to lakes, reservoirs, rivers, and wetlands, while Dan Villa presented his use of POWER data to develop affordable and resilient energy solutions for coastal, remote, and island communities.

Eleven selected Lightning Talks were presented by POWER's users highlighting how POWER's data, tools, and services enable actionable decisions, accelerate learning, and improve outcomes in energy, buildings, and agriculture. Within the webinar, polling and Q&A features were enabled to encourage collaboration and allow for direct community engagement and feedback. The summit was concluded with closing remarks from Dr. Falguni Patadia, the POWER project's deputy principal investigator.



*POWER Team Members at the Virtual 2025 Global Community Summit*

The full agenda is available on POWER's Global Community Summit website at <https://power.larc.nasa.gov/global-community-summit/>.

## Event Description

In September 2025, the NASA POWER project hosted its 4<sup>th</sup> annual GloCo Summit, a free two-day, virtual event aimed at fostering meaningful connections, exchanging valuable insights, and exploring new opportunities for supporting user communities. Every other year the project hosts a lighter version of the GloCo Summit with a shorter agenda. This year was the “lite” version.

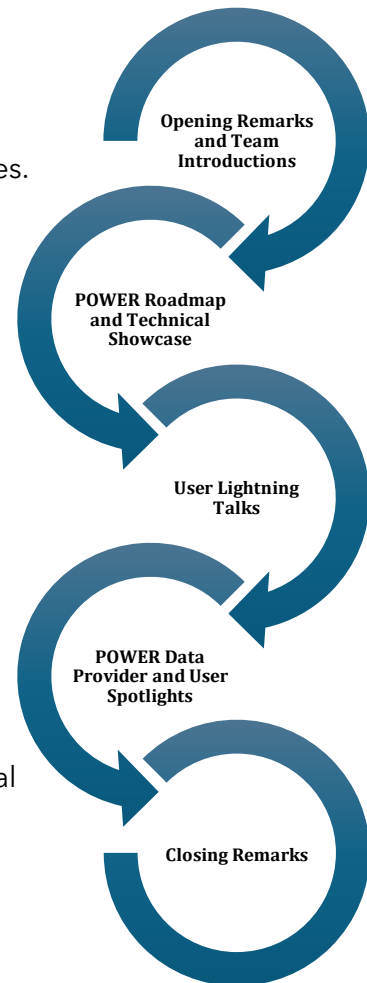
At this event, attendees:

- Learned about POWER’s latest enhancements to data product offerings and customized applications, as well as future plans from the POWER project’s principal investigator.
- Heard stories and use cases from POWER’s user community, showcasing how they are applying POWER’s data, services, and tools such as the [Data Access Viewer](#), [Application Programming Interface](#), [Amazon Web Service Open Data Registry](#), [ArcGIS Geospatial Image Services](#), and [PaRameter Uncertainty ViEwer \(PRUVE\)](#) in their missions across the globe.
- Through two spotlight presentations, received in-depth information about POWER’s newly integrated hydrological dataset and POWER data’s usefulness in off-grid applications.
- Helped to identify future data and service enhancements through interactive feedback.

POWER’s Technical Showcase presentation highlighted the migration to POWER Data Version 10 and various improvements to user experience. The discussion about migrating to Data Version 10 highlighted several enhancements, including improved latency and data lineage, enhanced metadata, implemented data compression, and adopted a dual structure. In addition, elements of the improved user experience included the addition of:

- New Parameter Dictionary.
- Enhanced website experience and landing page.
- Improved tools (such as PRUVE).
- Improved user support through an online feedback form.

*Each of the various sections of the meeting are summarized in this report and the complete agenda can be found in Appendix A.*



2025 GloCo Summit Sessions

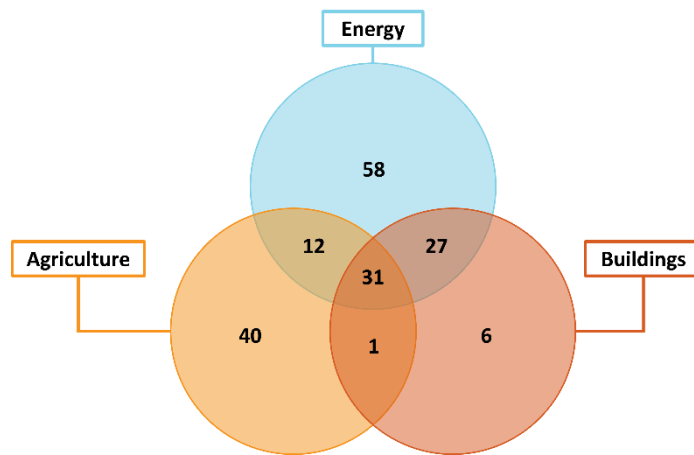
**Event Participation Statistics**

Below is a summary of the statistics gathered related to event registrants and attendees.

Total Registrants: 231  
 Total Attendees: 89  
 Day 1 Attendees: 76  
 Day 2 Attendees: 34

Average Join Time: 1 hour 26 minutes  
 Conference Duration: 2 hours

Roughly 63% of registrants identified with the energy community, 41% with agriculture, 34% with buildings, and 19% selected other. Significant community overlap, registrants who select more than one community, demonstrates the cross-cutting nature of POWER data application, with 36% selecting two or more communities. Of those that selected "other," climate and Earth science, AI/ML, education, wastewater management, engineering, and space were mentioned.



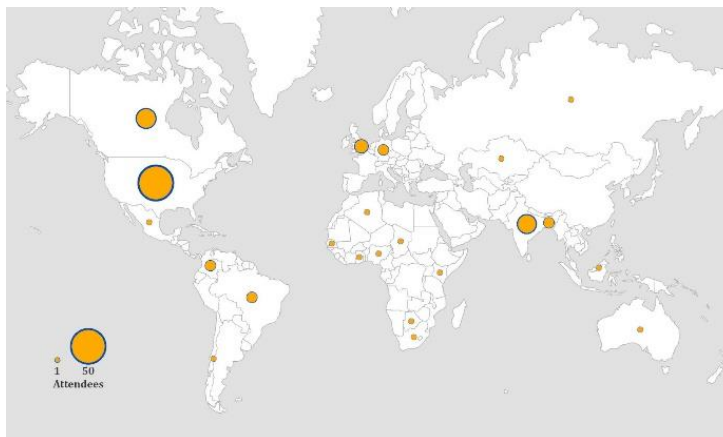
Registrant Breakdown by POWER User Community

The table below presents the approximate percentage of attendees, based upon their affiliation.

| Affiliation             | Academic | Private Company | NASA | Other Govt. Organizations | Research | Non-Profit |
|-------------------------|----------|-----------------|------|---------------------------|----------|------------|
| Percentage of Attendees | 33%      | 25%             | 25%  | 6%                        | 3%       | 2%         |

\*Other affiliations totaled 7%.

Registrants reported from 51 countries, which is shown in the world map, while attendees represented 23 countries. More than half of all attendees were located in the United States. Other countries with higher attendance include India, Canada, the United Kingdom, Germany, Columbia, Bangladesh, and Brazil.



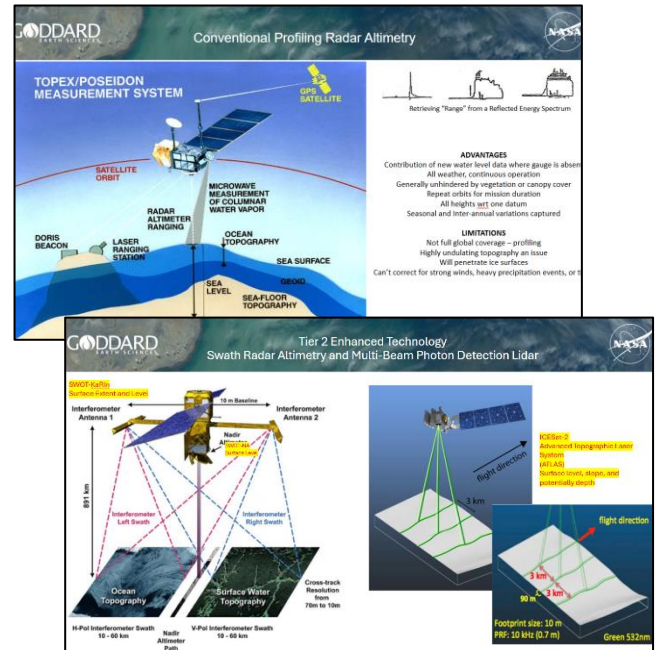
Global Map of GloCo Summit Registrants

**Data Provider & User Spotlights**

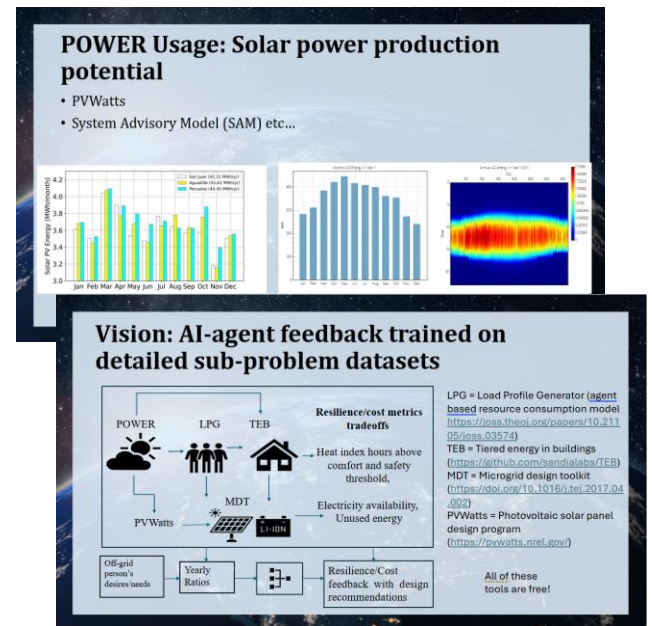
Established partners and advanced users from POWER’s community were invited to present as Data Provider and User Spotlights. These sessions were designed to benefit the broader community of users by diving deeper into NASA datasets recently implemented into the POWER data catalog and government research utilizing POWER data and services.

On the first day of the GloCo Summit, Dr. Charon Birckett, with the NASA Sciences and Exploration Directorate, was featured as a Data Provider Spotlight, sharing the GWM system. GWM is a new Earth science initiative that integrates satellite radar altimetry data to monitor surface water levels in lakes, rivers, wetlands, and reservoirs. It provides publicly accessible products through its portal, supporting agencies like the U.S. Department of Agriculture Foreign Agricultural Service. GWM’s advanced instruments and multi-source data helps track water storage trends and reservoir depletion and support global agricultural and hydrological decision making. A new data pipeline integrates GWM into POWER’s data offerings, enhancing hydropower and irrigation analysis.

On the second day of the event, Daniel Villa, who conducts systems research and analysis at Sandia National Laboratories in New Mexico, was featured as a User Spotlight. Sandia National Laboratories is a federally funded technology research and development center assisting with the U.S. Department of Energy’s Energy Technology Innovation Partnership Project. The goal of the project is to develop affordable and resilient energy solutions for off-grid coastal, remote, and island communities. Villa uses POWER solar and weather data to feed into an AI-agent he developed that generates building models and simulates scenarios such as extreme weather to analyze energy use.



“Global Water Measurement System (GWM)” by Dr. Charon Birckett, NASA



“Off Grid Persons and Communities” by Daniel Villa, Sandia National Laboratories

## Lightning Talks

Members of the POWER community were invited to present five-minute Lightning Talks with the goal of showcasing the unique ways POWER data is being used across the globe to inspire further adoption and identify strategic growth areas. Eleven users gave talks during the event, affiliated with a range of commercial, research, and academic organizations. These sessions presented a unique opportunity to engage with POWER's user community. Users who presented provided a diverse and valuable representation of POWER's global user community, with projects taking place in the United States, Brazil, United Kingdom, South Africa, Kenya, Columbia, and India. Applications ranged from designing solar-powered unmanned aerial vehicles (UAVs) to developing agriculture modeling solutions for grapevines in data-limited environments.

*Below are highlights of select talks. A full list of 2025 GloCo Summit Lightning Talks can be found in Appendix B.*

**How NASA POWER Enables This...**

**POWER Data Products:**  
Solar Irradiance ( $W/m^2$ ), wind, temperature, cloud cover.

**Access:**  
Real-time API + historical dataset.

**Enhancement:**  
Worst-case design for reliability.

**Future Needs:**  
Higher resolution, batch queries, seasonal tools.

*Prototype UAVs, UK 2024/2025*

Dr. Nicola J. Butigieg, a research affiliate with the King's Institute for AI in London, uses POWER data to develop a solar-powered UAV designed to detect small Arctic icebergs that satellites miss. The team built two prototypes, focusing on capturing irradiance from all angles and using machine learning to forecast weather conditions above and below clouds. The UAV's design is optimized using wind pressure and irradiance data to ensure flight in worst-case scenarios.

**Variation in Ripening of Grapevine Cultivars**

Islamabad

Chakwal

Perlette King's Ruby Sagra One NARC Black

Dr. Rizwan Rafique, a postdoctoral researcher at the University of Florida, is developing modeling solutions for sustainable crop production focusing on predicting key phenological stages in vineyards. Using POWER data and field surveys from over 200 vineyards, his team analyzed seasonal variability and its impact on grapevine ripening and developed a phenology model. Dr. Rafique's goal is to eventually create a phenology forecasting application to support better decision making in agriculture under varying seasonal conditions.

**Embrapa: Brazilian Agriculture Research Corporation**

- Agricultural Research under Ministry of Agriculture
- 43 units in Brazil (and offices in US, Europe)
- Mission: To enable research, development, and innovation solutions for the sustainability of agriculture, benefiting Brazilian society.
- Social Balance:
  - R\$25.34 for every R\$1.00 invested\*

*\* Fonte: Anuário Estatístico 2014. Embrapa. Disponível em: <http://www.embrapa.br/estatistica>*

Daniel Victoria, a researcher with the Brazilian Agricultural Research Corporation (Embrapa), assists with the organization's mission to support sustainable agriculture through research and development. A key focus of his work is evaluating agrometeorological risks during crop growth using a crop and water balance model, which informs national agricultural insurance. His team relies heavily on POWER's meteorological data to estimate potential evapotranspiration, which has improved their risk analysis and crop modeling across 4,000 rain gauge stations.

## Webex Polling Results

The Global Community Summit serves as an annual avenue for the POWER team to gather valuable feedback from users to enhance data and service offerings, improve outreach, and better support communities. Live polling during the summit provided an opportunity for attendees to share feedback on their experience with NASA POWER data and services, answering questions such as what offerings they find most useful, what they would like to learn more about, and what they would like to see from POWER in the future.

Key findings indicate:

- 42% of respondents stated they are occasional users, 17% are daily users, and 9% are monthly users.
- 36% of attendees stated they learned about the GloCo Summit from a colleague.
- Attendees stated the Data Access Viewer is the tool they use most often.
- Over 70% of respondents said they would like a separate in-depth PRUVE demonstration, which the team is working on organizing based on this feedback.

*Detailed polling responses can be found in Appendix C.*

## Post-Event Feedback

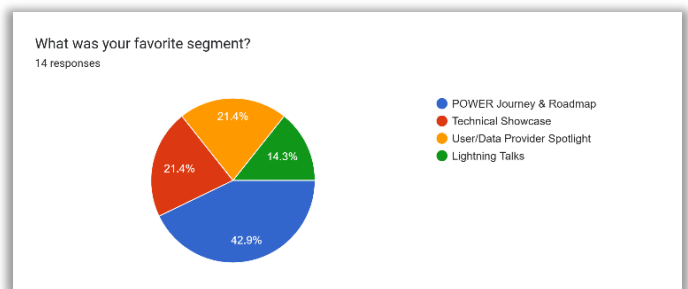
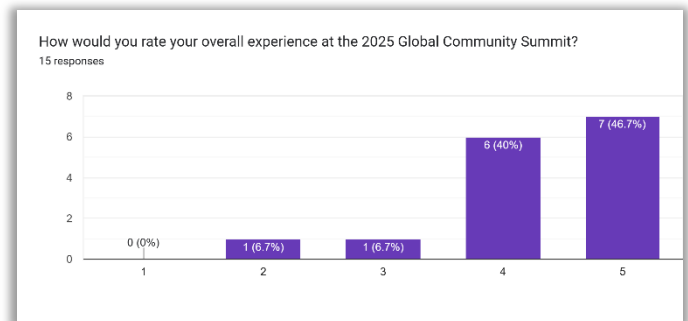
To improve future Global Community Summits, the POWER team collected feedback after the event. *Details of all feedback collected can be found in Appendix D.*

Of the 15 respondents that attended the event and responded to the survey,

- Close to 87% rated the overall experience, as well as the quality and relevance of the sessions and presentations to be a four or five on a 1-to-5 scale.
- The sessions respondents found most valuable were the POWER Roadmap, Technical Showcase, and User/Data Provider Spotlights.
- 73% of respondents thought the event was “just right” in terms of duration, while 20% felt the event was too short.
- Multiple respondents expressed interest in sharing user stories and presenting Lightning Talks at future summits.

In the free response section, users noted that they’d like to see:

- Interactive workshops and hands-on demonstrations.
- Improvements to POWER website usability (e.g. expanding the range of downloadable data formats, enhancing visualization tools, and providing additional guidance on integrating POWER data with local GIS and remote sensing platforms).
- Facilitation of more networking opportunities for user communities.



*Examples of Questionnaire Feedback*

For those who could not attend the event, 21 respondents shared they were not able to attend due to scheduling conflict, technical difficulties, and inconvenient times.

### Key Takeaways

The 2025 GloCo Summit was the project's fourth virtual event and provided an invaluable opportunity to interact with end users and stakeholder communities. Key takeaways from the two-day event include:

- Expanded Global Reach & Participation: The POWER project now serves over 1.58 million users, with a 26% increase in users since 2024, supporting communities within energy, infrastructure, and agroclimatology. The summit brought together over 90 participants from 21 countries, including scientists, students, members of government agencies, and community leaders.
- Growing Community of Co-Design: The POWER team consistently leans on users to share feedback on platform usability and functionality. The summit has been an avenue for users to share their thoughts and significantly impact the design and features of the POWER website.
- Influential Educational & Actionable Impact: It is apparent that there are a plethora and variety of use cases for POWER data. Providing data that is accessible and free has not only impacted the current workforce but is empowering the next generation of climate scientists and engineers.
- Steadfast Legacy & Level of Continuity: This annual summit has developed an informal community of practice to encourage continued engagement, resource sharing, and collaborative project incubation. The legacy of the GloCo Summit has created a consistent platform of opportunity to share innovative and acclimating POWER project resources.

Concluding this year's GloCo Summit, the NASA POWER team conducted a hotwash session in which the team reflected on the successes and lessons learned from this year's GloCo event, capturing valuable feedback to inform future planning. The discussion highlighted strong engagement, innovative content delivery, and areas for streamlining coordination with user communities. Looking ahead, we're excited to announce that planning is already underway for our fifth annual GloCo Summit in 2026, which we intend to host in-person next year. This milestone gathering will offer an even more dynamic platform for global collaboration, deeper connections, and impactful knowledge sharing.

### Acknowledgements

The POWER project is funded through the NASA Earth Action Program within the Earth Science Division of the Science Mission Directorate. The POWER team is assisted with technical and scientific inputs from the following Earth Science Division teams: The World Climate Research Programme Global Energy and Water Cycle Experiment's Surface Radiation Budget and the Clouds and the Earth's Radiant Energy System projects at NASA Langley Research Center and the Global Modeling and Assimilation Office at the NASA Goddard Space Flight Center and the NASA Langley Sciences Data Center.

**Appendix A: Agenda**

**Day 1: Tuesday, September 9, 2025**

| <b>TIME (EST)</b>        | <b>SESSION</b>                                      |
|--------------------------|---|
| <b>3:00 PM - 3:05 PM</b> | Getting Started                                     |
| <b>3:05 PM - 3:35 PM</b> | POWER Roadmap & Technical Showcase                  |
| <b>3:35 PM - 4:10 PM</b> | Lightning Talk Session #1                           |
| <b>4:10 PM - 4:25 PM</b> | Data Provider Spotlight by Dr. Charon Birkett, NASA |
| <b>4:25 PM - 5:00 PM</b> | Lightning Talk Session #2                           |

**Day 2: Wednesday, September 10, 2025**

| <b>TIME (EST)</b>         | <b>SESSION</b>                                       |
|---------------------------|--|
| <b>8:00 AM - 8:10 AM</b>  | Getting Started & Day 1 Recap                        |
| <b>8:10 AM - 8:50 AM</b>  | POWER Roadmap & Technical Showcase                   |
| <b>8:50 AM - 9:15 AM</b>  | Lightning Talk Session #3                            |
| <b>9:15 AM - 9:30 AM</b>  | User Spotlight by Daniel Villa, Sandia National Labs |
| <b>9:30 AM - 9:50 AM</b>  | Lightning Talk Session #4                            |
| <b>9:50 AM - 10:00 AM</b> | Closing Remarks                                      |

**Appendix B: Lightning Talk Speaker List**

**Session #1**

| SEPTEMBER 9, 2025<br>3:35 PM - 4:10 PM   | COMMUNITY |
|--|-----------|
| "Wilmington Energy Resources" by Cecelia Paparella, Sophia Plancich, Valentina Rozo, and Katie Fidler, NASA DEVELOP Program            | Energy    |
| "Optimizing Solar-Powered UAV Performance Using NASA POWER Data" by Nicola J Buttigieg, King's College London, King's Institute for AI | Energy    |
| "How Data Access Viewer Enriched Our Teaching and Learning Activities" by Dr. Saravanan Vasudevan, Arunai Engineering College          | Energy    |

**Session #2**

| SEPTEMBER 9, 2025<br>4:25 PM - 5:00 PM   | COMMUNITY       |
|--|-----------------|
| "Predicting Solar Irradiance in New Delhi Using NASA POWER Data: A Comparative Study of Linear and Ensemble Learning Models" by Jyotsna Singh, University of Arizona             | Energy          |
| "AquaPower: Proposed Tool for Empowering Low-Income Communities with Water and Energy Solutions and Disaster Resilience" by Stephen Mureithi Kivuti, Aquapower                   | Energy          |
| "Developing a Simple Modeling Solution for Grapevines in Data-Limited Environments: Insights from a Non-Traditional Viticulture Region" by Rizwan Rafique, University of Florida | Agroclimatology |
| "Clouds, Crops and Code" by Kiara Morarjee, University of Johannesburg   | Agroclimatology |

**Session #3**

| SEPTEMBER 10, 2025<br>8:50 AM - 9:15 AM   | COMMUNITY       |
|---|-----------------|
| "Using Weather Data for Smarter Charging" by Ioannis Kasinopoulos, Electryone AI                | Energy          |
| "Power to the Agriculture Climatic Risk Zoning" by Daniel Victoria, Embrapa Agricultura Digital | Agroclimatology |

**Session #4**

| SEPTEMBER 10, 2025<br>9:30 AM - 9:50 AM   | COMMUNITY |
|---|-----------|
| "Connectivity Solutions Using Solar POWER" by Sergio Cruz, Zte Colombia                                 | Buildings |
| "Bayesian Deep Learning for Uncertainty Quantification" by Siraj Mohammed, Southern Illinois University | Energy    |

## Appendix C: Webex Polling Results

### Q1: Are you a user of POWER data?

1. Not yet - 11%
2. Occasionally - 22%
3. Daily - 8%
4. Once a week - 4%
5. Once a month - 4%

### Q2: How did you learn about GloCo?

1. POWER mailing list - 12%
2. POWER website - 11%
3. Social media - 2%
4. Colleague or word of mouth - 20%
5. Company or internal communications - 1%
6. Previous attendance - 4%
7. Other - 4%

### Q3: What POWER parameters are used in your current workflows and at what temporal level (hourly, daily, monthly, annual, or climatology) (free text response)?

1. hourly
2. hourly, daily, monthly, annual
3. Hourly Building Energy Modeling data using the EPW format POWER provides
4. climatology
5. Daily and Climatology
6. I am currently working on hourly solar radiation forecasting using GOES satellite data and deep learning. I'm especially interested in POWER datasets.
7. hourly, daily
8. hourly Temperature and Humidity and Solar irradiation
9. agriculture, energy, building
10. climatology
11. temperature, incoming solar radiation, wind, relative humidity. All variables needed for Potential Evapotranspiration estimates using FAO56 formula

### Q4: What POWER tools and services do you use?

1. Data Access Viewer (DAV) - 24%
2. Application Programming Interface (API) - 14%
3. Geospatial Image Services - 7%
4. Direct Access through AWS S3 - 7%
5. PaRaMeter Uncertainty ViEwer (PRUVE) - 1%
6. Parameters Dictionary - 6%

### Q5: Are there any additional resources we could provide that would better help you in using NASA POWER data and services?

1. Jupyter Notebooks - 20%
2. Tutorials - 23%
3. Documentation - 23%

4. FAQs - 8%
5. Other - 4%

Q6: Please provide more information on the types of learning resources you'd like to see (free text response).

1. The documentation improvements over last year have been helpful. More public/community facing would be helpful to include description of how the data are commonly used.
2. Workshops on how access, download and use the tool.
3. Python environment
4. Implementation of weather data through cloud (Azure or AWS)
5. Data preprocessing, Geospatial analysis, high resolution data.
6. Doing a small pilot study as an example and applying all of your services, apps and tools that we can see their application and differences clearly and be able to choose the best suitable one regarding our projects. Many thanks!
7. solar power
8. climate risk et biodiversity data and forecasting
9. Would be good to have some code examples using R.

Q7: Would you be interested in attending a separate, in-depth PRUVE demonstration?

1. Yes - 22%
2. No - 7%

Q8: Do you have any requirements (e.g., new parameters, output formats, access methods, units, etc.) you'd like POWER to consider implementing?

1. access methods and units
2. Runoff for specific locations (compared with flood values)
3. Yes, I do have some requirements, but I would like to better understand what parameters might be needed after this semester. I will be available to provide more input once I'm free.
4. NIL
5. Focus on higher resolution products in mountainous areas would help me a lot.
6. Some NLP Products, annotated.
7. High resolution soil moisture and annual GDD
8. albedo and spectral albedo for solar power modeling
9. search functions of data that are.csv and the spatial resolution
10. I greatly appreciate the data and services provided by NASA POWER and would like to suggest a few enhancements for future consideration: Inclusion of additional high-resolution datasets, such as soil moisture, aerosols, and climate projection data. Support for more output formats (e.g., GeoTIFF, NetCDF) and bulk data exports. A more advanced RESTful API with client libraries in Python and R for easier integration. Options to customize units and time zones for outputs. Improved performance for large data
11. I propose to have in the NASA database data on average values (during daylight hours) of the following quantities: meteorological parameters, solar radiation and production of electric energy by solar power plants for different placement conditions

(longitude and latitude). It is also necessary to know the nominal value of the efficiency of solar cells.

Q9: Do you have a story you would like to share where POWER data contributed to societal benefits like energy security, economic growth, policy-making, or informed decisions? If yes, please provide a preferred contact email (free text response).

1. renewable energy
2. solar power
3. Thanks to the POWER dataset I was able to make greenhouse fan system design recommendations, crop yield increases, power use and thermal conditions using EnergyPlus for a Navo owned sustainable farm operated by Bidii Baby Foods LLC in New Mexico near Four Corners.

Q10: What was your favorite segment of today?

1. POWER Journey & Roadmap - 3%
2. User Spotlight/Data Provider Spotlight - 4%
3. Lightning Talks - 4%

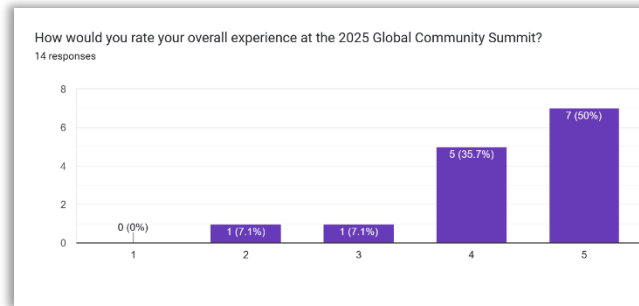
**Appendix D: Post-Summit Feedback**

After the GloCo Summit, a questionnaire was circulated to POWER’s user community to receive feedback on the attendees’ experience, potential areas for improvement, and data and web services. The 36 responses are detailed below, to include those who were able to attend and those who weren’t.

**Attendee Feedback**

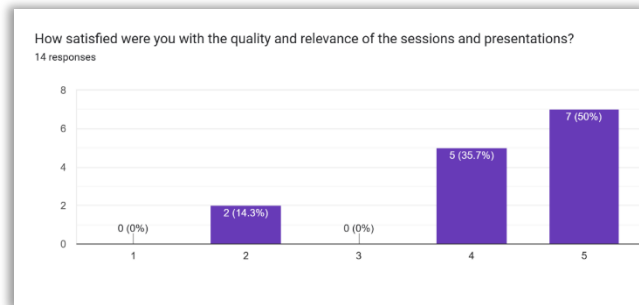
Q1: How would you rate the overall experience at the 2025 Global Community Summit (scale of 1-to-5)?

- 1 - 0%
- 2 - 6.7%
- 3 - 6.7%
- 4 - 40%
- 5 - 46.7%



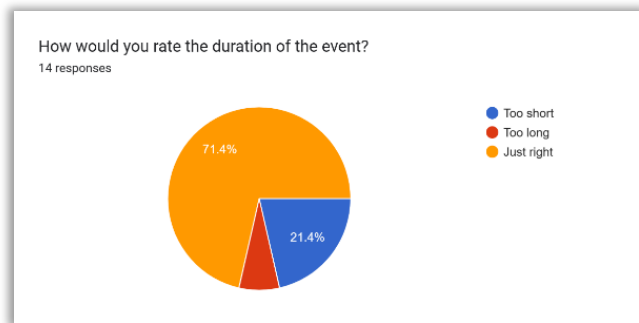
Q2: How satisfied were you with the quality and relevance of the sessions and presentations (scale of 1-to-5)?

- 1 - 0%
- 2 - 13.3%
- 3 - 0%
- 4 - 40%
- 5 - 46.7%



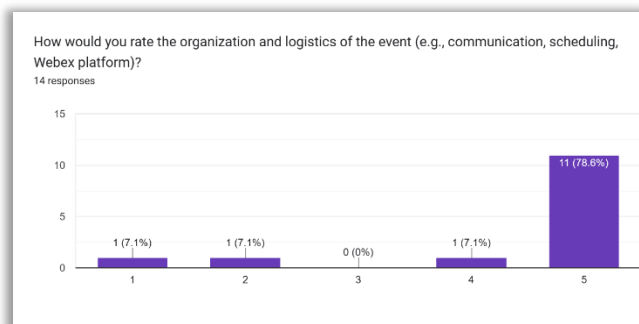
Q3: How would you rate the duration of the event?

- 1. Too short - 20%
- 2. Too long - 6.7%
- 3. Just right - 73.3%



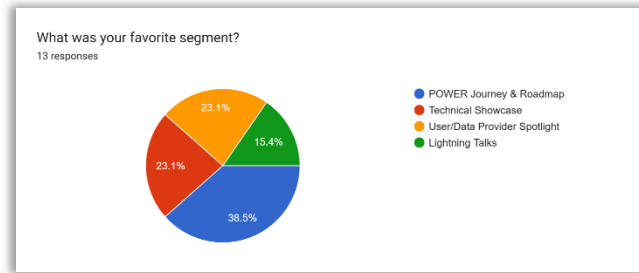
Q4: How would you rate the organization and logistics of the event (e.g., communication, scheduling, Webex platform) (scale of 1-to-5)?

- 1 - 6.7%
- 2 - 6.7%
- 3 - 0%
- 4 - 13.3%
- 5 - 73.3%



### Q5: What was your favorite segment?

1. POWER Journey & Roadmap - 42.9%
2. Technical Showcase - 21.4%
3. Use/Data Provider Spotlight - 21.4%
4. Lightning Talks - 14.3%



### Q6: What was the most valuable takeaway or insight you gained from the summit (free text response)?

1. Learning from others' expertise and gaining a deeper understanding of the POWER Journey & Roadmap, as well as insights from the Technical Showcase and User/Data Provider Spotlight.
2. Identify atmospheric phenomena
3. Roadmap
4. The evolution and multiplicity of data that will be available to support design of solar energy generation projects.
5. New Product/Tool development for renewable energy with additional features.
6. I got to know how researchers are using NASA POWER data in their research.
7. Scientific declarations

### Q7: Would you be interested in presenting a Lightning Talk at next year's Global Community Summit?

66% responded yes

### Q8: Are you interested in sharing your use case with us for amplification in NASA outreach materials and publications?

66% responded yes

### Q9: What could we do to improve future summits, data products, services, and/or outreach (free text response)?

1. Adding breakout rooms or smaller discussion groups to continue to expand hands-on demonstrations and offer more interactive sessions
2. Provide talk titles and abstracts in advance for all speakers so that attendees can select which parts are most relevant. Also, there seemed to be repetition from the NASA POWER presentation across the two days - I don't think this is necessary, especially if it will be available via recording later.
3. Provide deep terrestrial crustal scanning data using low-frequency synthetic dual aperture radar with penetration up to 5,000 meters and pixel resolution not exceeding 0.6 [m].
4. Be appreciative that speakers took time out of their primary role to prepare such talk.
5. Kindly conduct webinars about new product/tools launch once in three months.
6. Try to add one tutorial on any product or any data analysis, it will make this summit an overall package.

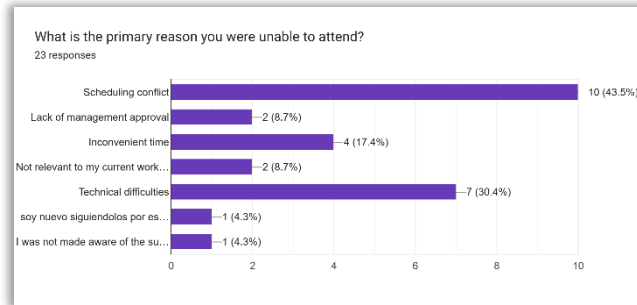
### Q10: Is there anything else you'd like to share with us (free text response)?

1. Thank you for organizing such an important summit. The content was highly relevant, and the opportunity to connect with the broader community was incredibly valuable.
2. It is good to be connected with the team of NASA. Thank you for organizing this two-day event.

## For Those Unable to Attend

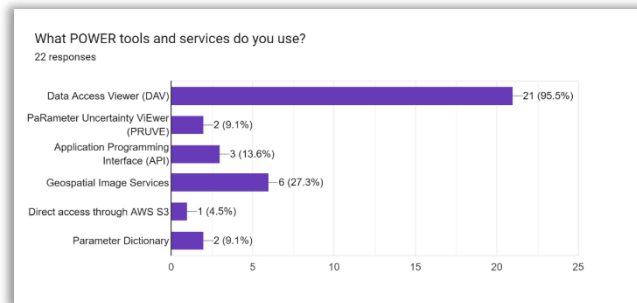
Q1: What is the primary reason you were unable to attend?

1. Scheduling conflict - 43.5%
2. Technical difficulties - 30.4%
3. Inconvenient time - 17.4%
4. Lack of management approval - 8.7%
5. Not relevant to my current work or interests - 8.7%
6. Other - 8.6%



Q2: What POWER tools and services do you use?

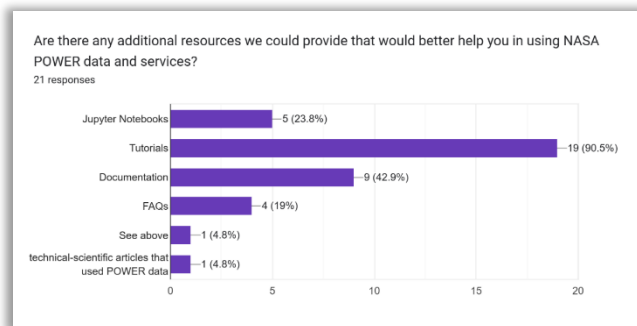
1. Data Access Viewer - 95.7%
2. Geospatial Image Services - 30.4%
3. Application Programming Interface - 17.4%
4. PaParameter Uncertainty ViEwer - 8.7%
5. Parameter Dictionary - 8.7%
6. Direct access through AWS S3 - 4.3%



Q3: What POWER parameters are used in your current workflows and at what temporal level?  
 Respondents provided a range of answers that cover all NASA POWER data offerings.

Q4: Are there any additional resources we could provide that would better help you in using NASA POWER data and services?

1. Tutorials - 90.9%
2. Documentation - 45.5%
3. Jupyter Notebooks - 22.7%
4. FAQs - 18.2%
5. Other 9%



Q5: Do you have any requirements (e.g., new parameters, output formats, access methods, units, etc.) you'd like POWER to consider implementing (free text response)?

1. New Parameters including soil temperature, extreme climate indicators, and air pressure at various levels, and absolute humidity.
2. Output formats such as GeoTIFF.
3. Expanded API capabilities for batch downloads and integration with platforms like Google Earth Engine.
4. Ability to select preferred units (e.g., precipitation in mm, solar radiation in MJ/m<sup>2</sup>/day) at the query stage.
5. Flexibility to extract seasonal or decadal averages in addition to daily, monthly, and annual datasets.

6. Ability to capture a larger swath of irradiance, and if possible, to separate visible plus some UV as one data series.
7. Ability to query larger datasets without the connection timing out.

Q6: Are you interested in sharing your use case with us for amplification in NASA outreach materials and publications?

56% responded yes

Q7: What could we do to improve future summits, data products, services, and/or outreach (free text response)?

1. Create awareness about this event to the research scholars, which will make this field to the next level.
2. NASA could consider offering more interactive workshops and hands-on sessions where participants directly apply POWER data to real-world projects.
3. Expanding the range of downloadable data formats, enhancing visualization tools, and providing clear guidance on integrating POWER data with local GIS and remote sensing platforms would greatly improve usability.
4. For outreach, developing case studies that highlight practical applications (especially in developing countries) and facilitating more networking opportunities between scientists, practitioners, and local communities could significantly increase impact and engagement.
5. More communication on when it will happen.

Q8: Is there anything else you'd like to share with us (free text response)?

1. I really want to meet you and learn more about you and all your work for the good of humanity.
2. I'm a retired math professor who has been mentoring K-12 teachers taking AMS online DataStreame course. The DAV is used in one chapter of the Climate course.
3. It really helped me complete my project successfully.
4. Great job with POWER. thank you for your work.
5. I am studying about POWER services from NASA ARSET programs.