### Working Together: Central Pennsylvania's Intergovernmental Solar Power Purchase Agreement Working Group

Peter Buck | Chair, SPPAWG Joe Viglione | CRCOG Finance Director Gretchen Brandt | Vice-Chair, SPPAWG Pam Adams | CRPA Sustainability Planner

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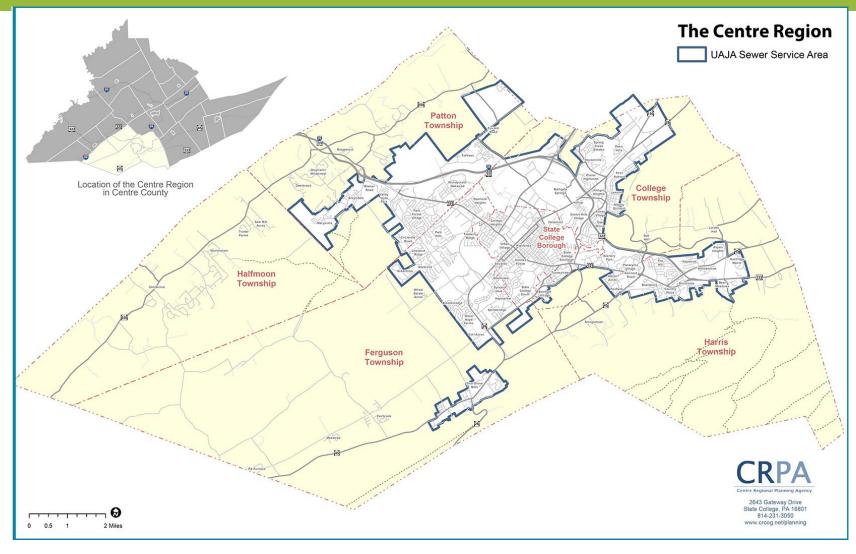
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### OUTLINE

- 1. Background of Centre Region
- 2. Possibility
- 3. Possibility to Project
- 4. Project to Contract
- 5. What's next?



## **Centre Region Council of Governments**



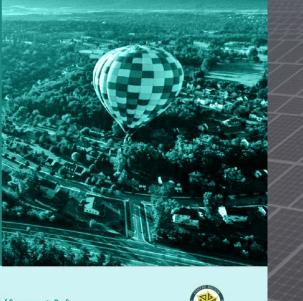




For the Borough of State College and Townships of College, Ferguson, Halfmoon, Harris, and Patton

Local Actions and Policies to reduce our greenhouse gas emissions and increase our climate resilience





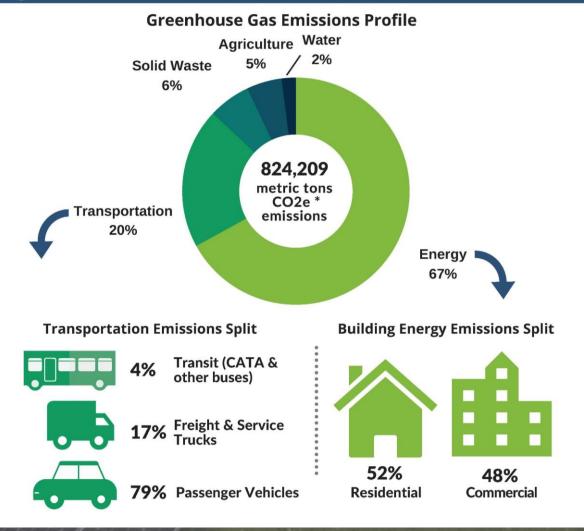
CRPA Centre Regional Planning Agency

To be Approved by the Centre Region Council of Governments Draft 9/29/21

Produced by Centre Regional Planning Agency Through partnership with Local Government for Sustainability (ICLEI)



#### CENTRE REGION COMMUNITY GREENHOUSE GAS EMISSIONS INVENTORY COLLEGE - FERGUSON - HALFMOON - HARRIS - PATTON - STATE COLLEGE BOROUGH







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### **Climate & Sustainability Policies**

### **GHG emissions reduction targets**

• 45% reduction in GHG emissions by 2030 based on 2010 levels

• 80% reduction in GHG emissions by 2050 based on 2010 levels

 Offset the remaining 20% of GHG emissions in 2050 with carbon offset projects to be carbon neutral in 2050



## Idea to Possibility: Solar Potential in Pennsylvania

PJM has entered a new leg of growth in the supply of renewable energy projects buoyed by Renewable Portfolio Standards and ageing baseload generation

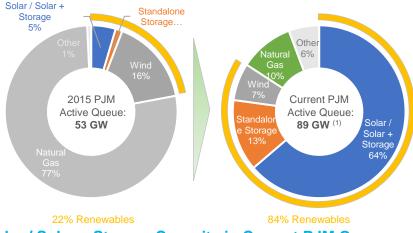
#### **Selected Commentary**

- While PJM load growth is expected to continue to remain subdued in the nearterm, longer-term EV adoption is expected to provide a boost to demand as 10% of all load by 2050 is driven by EV charging
- While wind and solar have experienced relatively slower adoption within PJM relative to other U.S. ISOs, interconnection requests have since become dominated by renewable resources, with solar / solar + storage comprising 64% of total active interconnection requests
- Notably, 84% of total interconnection requests have been filed by renewables projects <sup>(1)</sup> driven by state procurement goals and lowering technology cost curves
- As part of its long-term forecast, WoodMackenzie anticipates that coal will completely exit PJM's generation stack by 2040
  - Natural gas is not expected to grow, while solar is expected to increase at a 14% CAGR through 2050 to comprise 14 GW of installed capacity

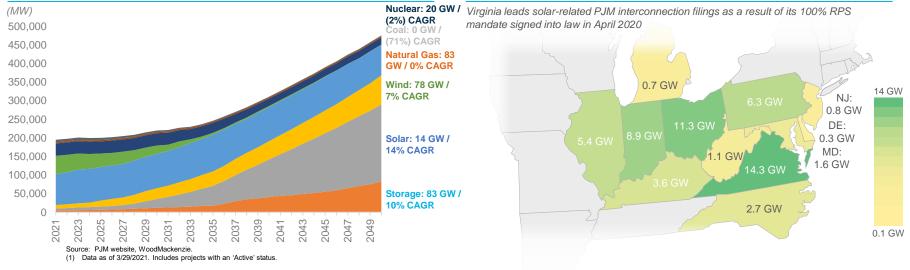
#### PJM Transition To Renewable Energy

#### PJM Interconnection Queue: 2015 vs. Current

At the end of 2015, natural gas comprised over 75% of the active capacity filed in the interconnection queue, but now represents only 10%







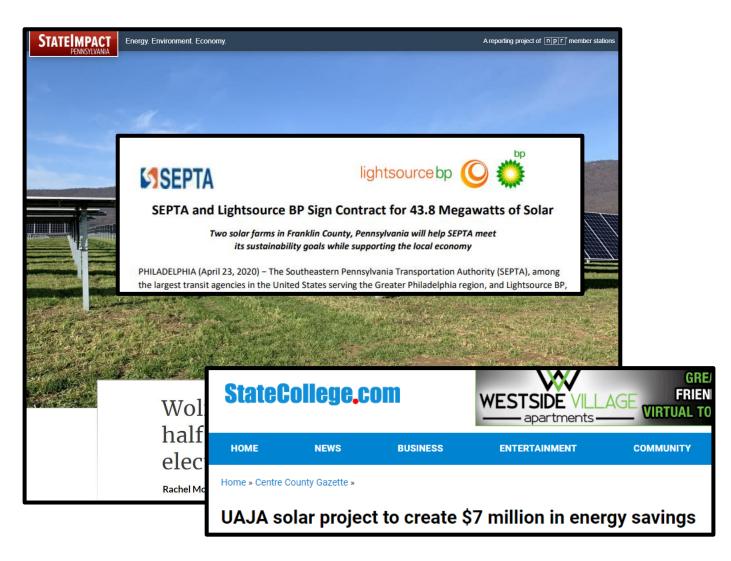
# **Solar Potential in Pennsylvania**

### Penn State, Lightsource BP break ground on largest solar project in Pennsylvania Project will provide 25% of University's statewide electricity over 25 years while maximizing the impacts of sustainable solar farming and providing a living laboratory for students Secure your spot on the 10th **Power World** OP SOLAR CONTRACTORS ~ ARTICLES ~ POLICY ~ MARKETS ~ PRODUCTS ~ SUBSCRIBE RESOURCE Philadelphia signs 70-MW solar PPA with **Community Energy**

By Billy Ludt | December 18, 2018

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Clean energy developer Community Energy announced the approval of a 70-MW solar Power Purchase Agreement (PPA) in Adams County Pennsylvania, to nower government facilities in Obiladelphia



## TIMELINE

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- Convened Finance Directors
- 2019: Worked with the COG Finance and Public Services & Environment Committees + other Stakeholders to form a Working Group [Approval for COG Staff to facilitate and organize process.]
- Formed working group: Initial group; Solicitation of new members; Goals; Governance; Cost Allocation; Fiduciary appointment of State College Area School District; Create a Timeline for Action
- 2020: Asked to join World Resources Institute & Rocky Mountain Institute Aggregation Cohort
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## **Intergovernmental Cooperation [Act]**

#### SUBPART D

AREA GOVERNMENT AND INTERGOVERNMENTAL COOPERATION

#### Chapter

- 23. General Provisions
- 25. Environmental Improvement Compacts

#### CHAPTER 23

#### GENERAL PROVISIONS

#### Subchapter

- A. Intergovernmental Cooperation
- B. Environmental Advisory Councils
- C. Regional Planning

Enactment. Chapter 23 was added December 19, 1996, P.L.1158, No.177, effective in 60 days.

#### SUBCHAPTER A

#### INTERGOVERNMENTAL COOPERATION

#### Sec.

- 2301. Scope of subchapter.
- 2302. Definitions.
- 2303. Intergovernmental cooperation authorized.
- 2304. Intergovernmental cooperation.
- 2305. Adoption of ordinance or resolution.
- 2306. Initiative and referendum.
- 2307. Content of ordinance or resolution.
- 2308. Bids for certain joint purchases.
- 2309. Direct purchases.
- 2310. Joint purchases with private educational establishments.
- 2311. Written or telephonic price quotations required.
- 2312. Division of transactions provided.
- 2313. Penalty.
- 2314. Required review of specified agreements.
- 2315. Effect of joint cooperation agreements.
- 2316. Recognition by Commonwealth departments and agencies.
- 2317. Agreements for fire protection services in cities of the second class.

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- A. Reduce electricity costs
- B. Provide price certainty for long-term electricity costs
- C. Meet sustainability and climate goals
- D. Educate regional participating entities, citizens, professionals and youth in cooperating non-profit and business organizations
- E. Reduce the cost of developing renewable energy projects
- F. Further integrate economic prosperity, health and well-being, and environmental integrity in energy development.
- G. To facilitate industries and businesses within the region, to increase energy diversity and to reduce dependence on fossil fuels.
- H. To enhance the economic value of Group assets
- I. To provide structures aesthetically compatible with the Group's facilities and surrounding neighborhoods.

## **SOLAR POWER PURCHASE AGREEMENT WORKING GROUP**

**Centre Area Transportation Authority Centre County Housing Authority Centre Region Council of Governments College Township Water Authority State College Borough Water Authority State College Area School District Centre Hall Potter Sewer Authority Centre County Refuse and Recycling Authority** 

Centre County Government College Township Ferguson Township Halfmoon Township Harris Township Patton Township State College Borough

## GOVERNANCE

• SCASD lead organization as Fiduciary [CATA Federal

Contracts Requirement]

- SCASD has two votes. All other entities get one.
- Majority rules. [All decisions to date have been unanimous.]

### **COST ALLOCATION BASED ON ELECTRIC USAGE**

As Approved at 12/18/19 SPPA Meeting

| <u>Month</u>      | <u>CCRRA</u> | Centre Co                              | <u>SCASD</u> | <b>SCBWA</b> | CATA      | <u>CCHA</u> | <u>CHPSA</u>      | <u>COG</u>                              | <u>SCB</u> | Ferguson    | Patton       | College | <u>CTWA</u> | <u>Halfmoon</u>        | <u>Harris</u> | Total      |
|-------------------|--------------|--|--------------|--------------|-----------|-------------|-------------------|---|------------|-------------|--------------|---------|-------------|------------------------|---------------|------------|
| January           | 70,784       | 215,933                                | 1,474,887    | 409,045      | 2,862,760 | 1,017,299   | 495,130           | 113,920                                 | 3,111,534  | 58,413      | 45,331       | 35,478  | 69,094      | 7,805                  | 13,509        | 10,000,922 |
| February          | 61,520       | 192,859                                | 1,244,806    | 441,272      | -         | 380         | 080               | 115,955                                 |            | 47,144      | 39,150       | 25,048  | 61,428      | 10,860                 | 11,177        | 2,251,219  |
| March             | 60,240       | 185,740                                | 1,115,968    | 383,280      | 2         | 120         | 6228              | 106,651                                 |            | 47,467      | 36,074       | 30,187  | 53,075      | 10,231                 | 8,916         | 2,037,829  |
| April             | 46,864       | 166,935                                | 1,038,836    | 387,090      | =         | 200         | 10 <del>0</del> 0 | 108,033                                 |            | 43,728      | 35,507       | 32,548  | 53,240      | 6,598                  | 8,142         | 1,927,521  |
| May               | 43,296       | 155,847                                | 1,045,919    | 386,012      | 2         | 120         | 020               | 100,395                                 |            | 39,288      | 27,194       | 31,049  | 50,134      | 6,215                  | 4,789         | 1,890,138  |
| June              | 39,704       | 173,075                                | 978,098      | 362,209      | 127       | 177.5       | 1070              | 118,101                                 |            | 43,789      | 25,926       | 30,471  | 52,413      | 4,507                  | 3,234         | 1,831,527  |
| July              | 43,360       | 147,845                                | 811,785      | 346,405      | <u></u>   | 120         | 021               | 161,032                                 |            | 45,473      | 25,899       | 32,240  | 50,962      | 3,977                  | 3,331         | 1,672,309  |
| August            | 43,432       | 171,105                                | 828,907      | 339,381      |           | 17763       | 1575              | 167,354                                 |            | 47,060      | 26,667       | 31,513  | 48,550      | 4,045                  | 4,470         | 1,712,484  |
| September         | 44,024       | 169,377                                | 1,293,683    | 297,486      |           | (247)       | 1940              | 160, 564                                |            | 47,216      | 29,246       | 33,267  | 51,241      | 3,581                  | 3,757         | 2,133,442  |
| October           | 39,776       | 150,086                                | 1,196,764    | 361,938      | 5         | 1750        | 074               | 154,772                                 |            | 43,878      | 26,383       | 32,989  | 54,757      | 3,984                  | 4,567         | 2,069,894  |
| November          | 54,232       | 168,401                                | 1,315,030    | 363,590      |           | 040         | 1940              | 116,609                                 |            | 44,926      | 31,563       | 31,604  | 93,995      | 2,926                  | 7,197         | 2,230,073  |
| December          | 62,976       | 197,614                                | 1,402,372    | 381,958      | 5         | 1752        | 0772              | 99,928                                  |            | 49,676      | 41,203       | 36,232  | 64,860      | 4,141                  | 12,141        | 2,353,101  |
|                   |              | (************************************* |              |              |           |             |                   |   |            |             |              |         |             |                        |               |            |
| Total             | 610,208      | 2,094,817                              | 13,747,055   | 4,459,666    | 2,862,760 | 1,017,299   | 495,130           | 1,523,314                               | 3,111,534  | 558,058     | 390,143      | 382,626 | 703,749     | 68,870                 | 85,230        | 32,110,459 |
|                   |              |  |              |              |           |             |                   |   |            |             |              |         |             |                        |               |            |
|                   |              |  |              |              |           |             |                   |   |            |             |              |         |             |                        |               |            |
| % Usage           | 1.90%        | 6.52%                                  | 42.81%       | 13.89%       | 8.92%     | 3.17%       | 1.54%             | 4.74%                                   | 9.69%      | 1.74%       | 1.22%        | 1.19%   | 2.19%       | 0.21%                  | 0.27%         | 100.00%    |
|                   | (========    |  |              | 3 <b></b>    |           |             | (=======          | ======================================= | ========   | ========    |              |         |             | 6 <del>222222222</del> |               |            |
|                   |              |  |              |              |           |             |                   |   |            |             |              |         |             |                        |               |            |
| Estimated Cost ** | \$     1,235 | \$ 4,238                               | \$ 27,827    | \$ 9,029     | \$ 5,798  | \$ 2,061    | \$ 1,001          | \$ 3,081                                | \$ 6,299   | \$    1,131 | \$       793 | \$774   | \$    1,424 | \$ 137 <sup>±</sup>    | \$            | \$ 65,000  |
|                   |              |  |              |              |           |             |                   |   |            |             |              |         |             |                        |               |            |

\*\* - Estimated Cost is the proportionate share of \$65,000 in legal and consulting services. \$65,000 falls at the higher end of the estimated cost of said services.

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LARGE SCALE RENEWABLE AGGREGATION COHORT







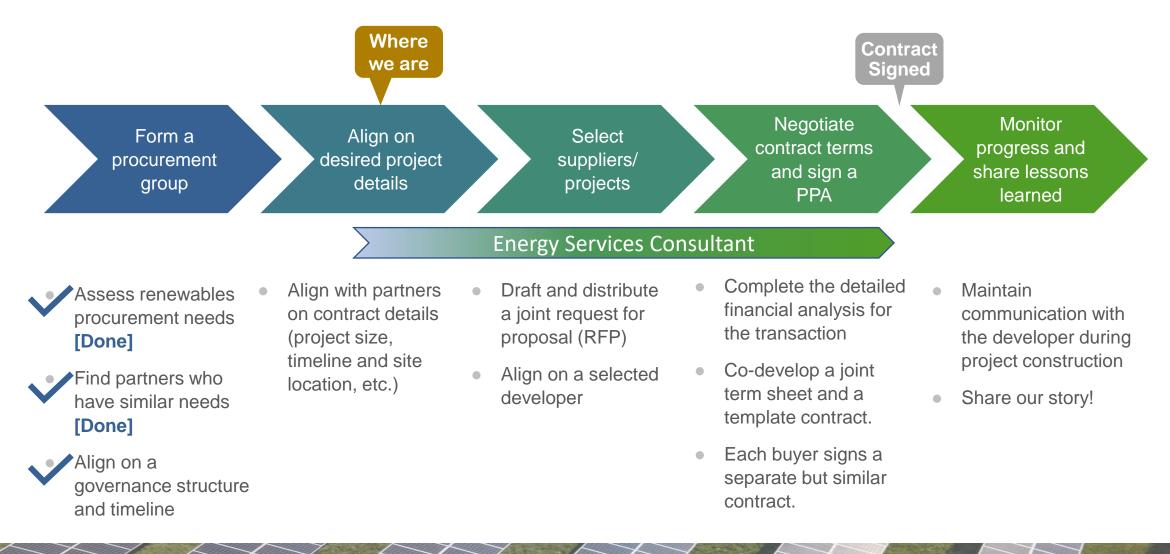
American Cities Climate Challenge RENEWABLES ACCELERATOR



WORLD Resources Institute

**Delaware** Valley **Baltimore Region** Region & Philadelphia Procurement Group **Procurement Group** New Hampshire SPPA WG **Procurement Group** McDonald's & Virginia Michigan Procurement **Procurement Group** 

# **Aggregated Renewables PPA Process**



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## **RFP Review Team**

Gretchen Brandt – SCASD COG liaison

Randy Brown – SCASD Finance & Operations Officer

Jason Grottini - SCBWA Board member

Bruce Donovan – CATA Director of Finance

Jesse Barlow – State College Borough Council

Kevin Stahl – SCASD Purchasing Manager

Joe Viglione – COG Finance Director

Pam Adams – CRPA Sustainability Planner

- Respond to questions regarding RFP
- Score the energy services consultant proposals
- Interview 2 consultants
- Make recommendation to SPPA WG

## **RFP for Energy Services Consultant**

- May 12 SPPA Working Group approve RFP release
- Sept 7 Individual Board/Council endorse consultant
- Sept 8 SPPA Working Group recommends SCASD hire consultant
- Oct 11 SCASD, on SPPA Working Group's recommendation, awards contract to consultant

## **ENERGY SERVICES CONSULTANT**

- Contract to investigate the viability of a SPPA
- SPPA WG's recommendation out to 15 entities
- Total Cost ~\$75,000

## **KEY DATES**

- Aug 12 Sept 14:Boards/Councils endorse the hiring of an EnergyServices Consultant
- Sept 15, 2021:SPPA WG recommends SCASD hire an energyservice consultant
- Sept 15 Oct 1:SCASD reviews, negotiates price and developscontract
- October 11:SCASD, on SPPA Working Group'srecommendation, awards contract

## **MOTIONS PASSED**

"That the \_\_\_\_\_ concur with the SPPA Working Group's recommendation and authorize \_\_\_\_\_ representative, \_\_\_\_\_, to vote to recommend that SCASD retain GreenSky Development Group as the Energy Services Consultant for the SPPA project in an amount not to exceed \$75,000, of which \_\_\_\_ share is \_\_\_\_%."



## **NEXT STEPS**

- 1. Formed Project Management Team
- 2. Consult with GreenSky to determine process [Education of SPPA WG; RFI; RFP]
- 3. Develop Criteria for SPPA RFP & Release RFP
- 4. SPPA Proposal Review
- 5. To Award or not to Reward?



# Thank you!

# QUESTIONS?

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