



City of Arts & Innovation

Mobility & Infrastructure Committee Memorandum

TO: MOBILITY & INFRASTRUCTURE COMMITTEE **DATE: OCTOBER 12, 2023**
FROM: PUBLIC UTILITIES DEPARTMENT **WARDS: ALL**
**SUBJECT: STATUS UPDATE REPORT ON PUBLIC UTILITIES RENEWABLE ENERGY
PROCUREMENT ACTIVITIES: SUNZIA WIND PROJECT**

ISSUE:

Receive a status update on the Public Utilities Department recent renewable energy procurement activities, specifically as they relate to the SunZia Wind Project.

RECOMMENDATION:

That the Mobility & Infrastructure Committee receive and file this status update report on the Public Utilities Department's recent renewable energy procurement activities.

LEGISLATIVE HISTORY:

In 2011, the California Legislature adopted SB X1-2, which officially created the first set of tiered Renewable Portfolio Standard (RPS) targets of 20% by 2013, 25% by 2016, and 33% by 2020. In 2015, the California Legislature adopted SB 350, which further increased the RPS goal to 50% by 2030.

In 2018, the California Legislature adopted SB 100, which maintained the target of 33% RPS by 2020 and set compliance period targets of 44% by 2024, 52% by 2027 and 60% by 2030. SB 100 is also known as "The 100 Percent Clean Energy Act of 2018" because it created the policy of planning to meet all the State's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by December 31, 2045.

In 2020, the City Council adopted the *Envision Riverside 2025 Strategic Plan*. This Plan, which includes Environmental Stewardship as a strategic priority, accelerated the goal of meeting all the City's retail electricity supply with a mix of RPS-eligible and zero-carbon resources up by five years (to 2040) when compared to the State's goal year of 2045.

BACKGROUND:

Riverside Public Utilities (RPU) provides high quality, reliable electric services to over 110,500 metered electric customers throughout the City of Riverside. RPU has a 1-in-2 peak summer load

of approximately 600 MW and an annual retail load of approximately 2,150 GWh. The Utility is committed to increasing its use of renewable resources and promoting sustainable living practices that help reduce environmental impacts within the City of Riverside and the state of California.

RPU has been incorporating renewable energy resources into its generation portfolio for over two decades. Since 2012, the Utility has contracted for 12 new renewable energy resources. Currently, 11 of these resources are on-line and typically supply more than 950,000 MWh/year of green energy to Riverside residents. More details concerning these 11 resources are shown in Table 1 below.

Table 1. New long-term renewable energy contracts executed by the City of Riverside since 2012.

Project Name	MW Capacity	Expected MWh Energy	Expected COD	Generation Technology	PCC	Pre-Existing Resource	CC Approval Date
WKN Wind	6	19,500	On-line	Wind	PCC-1	No	12/18/12
Columbia II	11	30,800	On-line	Solar PV	PCC-1	No	9/24/13
Cabazon	39	40,000	On-line	Wind	PCC-1	Yes	12/3/13
North Lake	20	47,000	On-line	Solar PV	PCC-1	No	10/9/12
CE-2016	20	147,200	On-line	Geothermal	PCC-1	Yes	5/14/13
CE-2019	20	147,200	On-line				
CE-2020	46	338,400	On-line				
Kingbird B	14	41,650	On-line	Solar PV	PCC-1	No	9/24/13
Tequesquite	7.3	15,000	On-line	Solar PV	PCC-1	No	3/4/14
Summer Solar	10	23,500	On-line	Solar PV	PCC-1	No	4/1/14
Big Sky	10	23,500	On-line	Solar PV	PCC-1	No	4/1/14
DSR 1	25	71,200	On-line	Solar PV	PCC-1	No	7/28/15
Coso-2022	10	83,000	On-line	Geothermal	PCC-1	Yes	1/05/21
Coso-2027	20	166,000	1/2027				

DISCUSSION:

In early 2021, staff identified a future, out-of-state wind project proposal that could supply Riverside with enough additional cost-effective renewable energy to meet or exceed the 2030 RPS mandates. This new wind development, known as the SunZia Wind Project, will be built in New Mexico and dynamically scheduled into the CAISO beginning in April 2026 as a Portfolio Content Category 1 (PCC-1) renewable resource.

The new SunZia Wind Project is being developed by Pattern Energy, one of the largest renewable energy developers in North America. The new wind facilities will be located in Lincoln, Torrance, and San Miguel Counties in New Mexico. A new SunZia transmission line will transport most of the wind energy across multiple southwest counties in New Mexico and southeast counties in Arizona (see Figure 1). Once built, the SunZia Wind Project will have a total nameplate capacity between 3,400 MW to 3,515 MW and represent the largest renewable wind energy generation facility in the United States, supplying wind energy to multiple southwestern states. Riverside's portion of this project will be 125 MW.

Under the terms of the proposed 15-year Power Purchase Agreement, this contract will provide an additional 369,000 to 390,000 MWh/year of long-term PCC-1 renewable wind energy into Riverside's portfolio, allowing the City to comfortably exceed its 60% RPS by the 2030 mandate three years early (see Figure 2). Additionally, the PCC-1 renewable energy supplied by this agreement will allow Riverside to reduce its carbon footprint by approximately 158,000 to 167,000 metric tons of carbon dioxide (MT CO₂) per year, facilitating significant progress towards the City's

carbon reduction goals. (This is the estimated greenhouse gas emissions reduction that will result from the displacement of market purchased electricity with an emissions factor of 0.428 MT CO₂/MWh.) Finally, the timing for when Riverside expects to receive this new wind energy aligns almost perfectly with our need to replace lost energy from the retiring IPP coal facilities. Likewise, the expected wind energy volumes and 24-hour production patterns provide a better replacement for this lost baseload energy than would be achieved by procuring additional solar or solar + four-hour storage options.

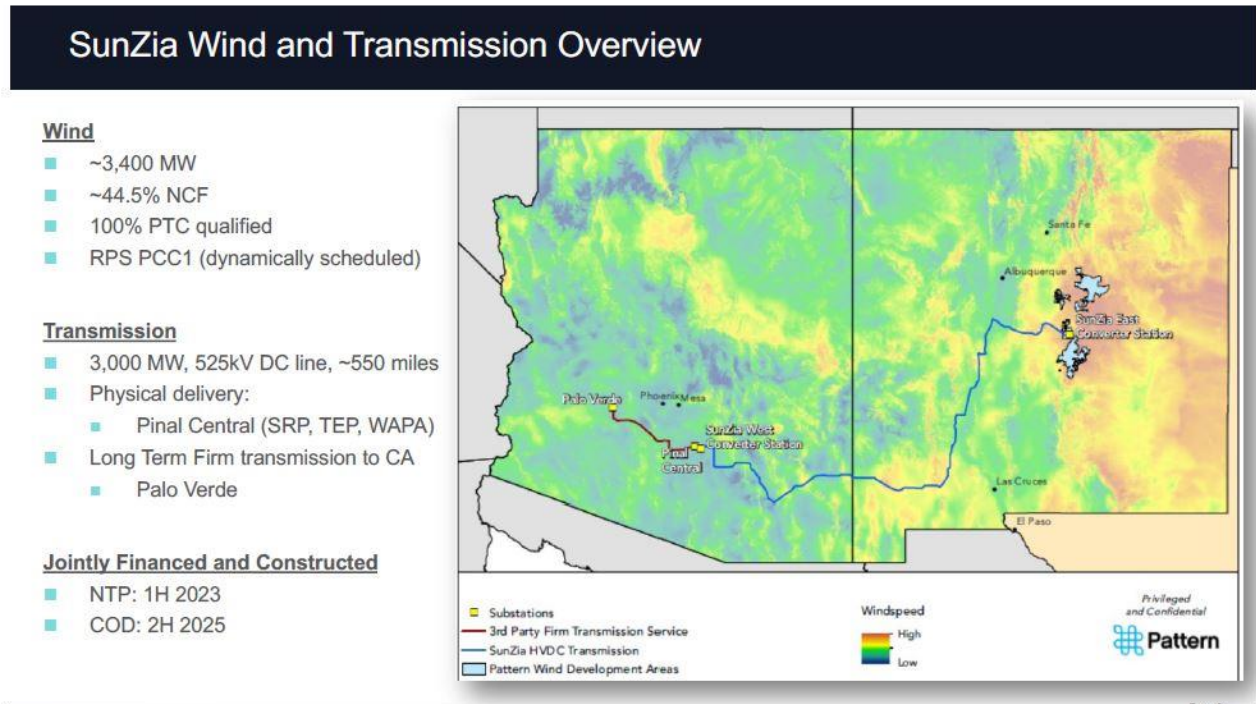


Figure 1: SunZia Wind and Transmission Overview Diagram

Figure 2 shows what Riverside's current RPS projections through 2030 will be if the new SunZia wind Power Purchase Agreement is successfully executed and added into RPU's portfolio. With this new resource added to our current renewable resource mix, Riverside will remain well above its safe-harbor RPS levels up to and beyond 2030 (and with sufficient excess renewable energy to cover the small 2025 deficit).

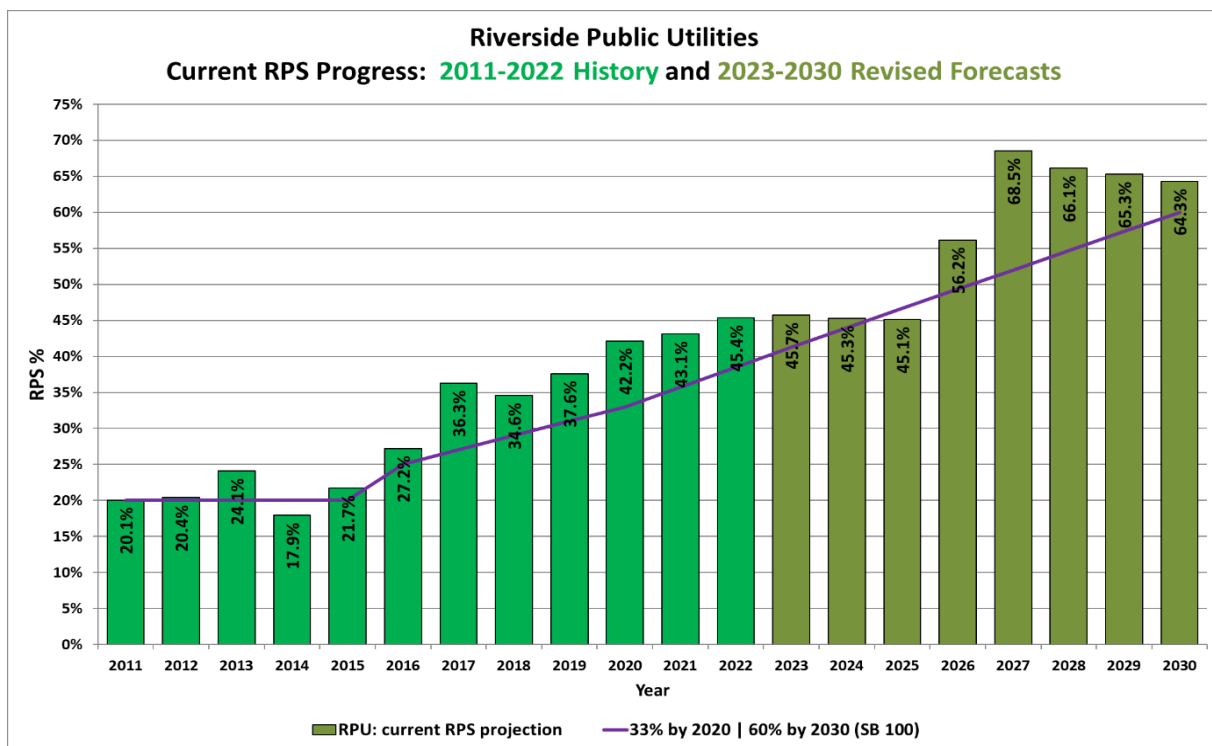


Figure 2. RPS projections through 2030, assuming the new SunZia wind resource is added to RPU's portfolio

STRATEGIC PLAN ALIGNMENT:

RPU's Renewable Procurements directly contribute to **Strategic Priority 4 - Environmental Stewardship** and **Goals 4.1** and **4.6**:

Goal 4.1: Rapidly decrease Riverside's carbon footprint by acting urgently to reach a zero-carbon electric grid with the goal of reaching 100% zero-carbon electricity production by 2040 while continuing to ensure safe, reliable, and affordable energy for all residents.

Goal 4.6: Implement the requisite measures to achieve citywide carbon neutrality no later than 2040.

The item aligns with each of the five Cross Cutting Threads as follows:

1. **Community Trust** – RPU is committed to transparency and accountability in its energy portfolio and planning. All long-term Power Purchase Agreements are adopted and approved in a public process by the Board of Public Utilities and City Council to ensure transparency and community trust.
2. **Equity** – RPU's resource portfolio serves energy throughout the community. Through its procurement of renewable resources, RPU is committed to ensuring that every member of the community has equal access to clean and renewable energy.
3. **Fiscal Responsibility** – RPU is committed to fiscal responsibility principles in its energy procurements and compliance. All prospective resources undergo a complete economic evaluation to ensure their cost-effectiveness in RPU's power resource portfolio and minimize impacts to the utility's cost of service.
4. **Innovation** – Staff keep up to date on the changing regulations and requirements as it

relates to the RPS along with study of new renewables technologies (as well as related enabling technologies, such as battery energy storage) as they become available. RPU evaluates the market viability and maturity of current and future renewable generation technologies (along with supporting technologies), incorporating them into its long-term planning where appropriate.

5. **Sustainability & Resiliency** – Renewable energy resource types are inherently sustainable, as they do not rely on unsustainable finite sources of fossil fuel or other inputs to reliably operate.

FISCAL IMPACT:

There is no fiscal impact associated with the receipt and filing of this report.

Prepared by:	Todd M. Corbin, Utilities General Manager
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Approved by:	Mike Futrell, City Manager
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Attachment:	Presentation
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