

# **Riverside Public Utilities**

## **CEC-RPS Annual Compliance Report for Calendar Year 2024**

Prepared by RPU Resource Operations and Strategic Analytics (ROSA) Division  
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## 1. Riverside Public Utilities

Riverside Public Utilities (RPU) was established in 1895, under the provisions of the California Constitution and Article XII of the City Charter. Riverside Public Utilities is supervised by the Public Utilities General Manager, and under the management and control of the City Manager, subject to the powers and duties vested in the Board of Public Utilities and the City Council. RPU provides high quality, reliable services to over 112,000 metered electric customers and 65,500 metered water customers throughout the City of Riverside, CA. 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.

The following Annual RPS Compliance Report for 2024 is being filed with the CEC in partial satisfaction of the annual reporting requirement for RPS compliance (Title 20, Division 2, Chapter 13, Section 3207.(c).1-4 and 3207.(d)). This report provides a high-level overview of the eligible, contracted renewable energy resources acquired by Riverside through December 31, 2024. This overview includes a general description of each renewable energy resource, including their Portfolio Content Category (PCC) classification, contracting details, LTR contract status, and expected (or observed) annual generation amounts. The annual forecasted generation amounts for each resource are also presented through 2030, along with projections of our expected RPS procurement percentages for this same time period. This documentation complements the following information being supplied to the CEC through the online portal:

- CEC-POU-RPS annual summary information and attestations
- WREGIS PCC-0, and PCC-1 Compliance reports for calendar year 2024
- WREGIS Compliance report for our 100% RET (green energy tariff) for calendar year 2024, and
- All WREGIS Attestation forms

Questions concerning the technical details presented in this 2024 Compliance Report should be directed to Jeff Leach, Power Resources Manager – Resource Planning, Riverside Public Utilities at [jleach@riversideca.gov](mailto:jleach@riversideca.gov).

## 2. Riverside’s Renewable Energy Resources

### 2.1 Grandfathered (PCC-0) Resource Details

In 2024, Riverside had just one Power Purchase Agreement (PPA) contract for renewable energy that qualified as grandfathered resources under the SB X1-2 RPS paradigm. This PPA was with Wintec Inc. for renewable energy from two small wind turbines, with a combined nameplate capacity of 1.3 MW, in Riverside County, CA. This long-term contract was executed in January 2003 and was set to expire on December 30, 2018. However, this contract was extended in 2019 for five additional years through February 19, 2024, subject to a reduced \$/MWh delivery price. From January 1, 2024 through contract expiration, these turbines produced 154 MWh of renewable energy.

Table 2.1 shows the amount of PCC-0 energy associated with this resource that RPU is claiming on its 2024 Annual RPS compliance filing with the CEC.

**Table 2.1.** Delivered and retired 2024 WREGIS PCC-0 RECs associated with the grandfathered Wintec (wind) resource (MWh units).

| PCC-0 Resource | Delivered 2024 WREGIS RECs (MWh) | Retired 2024 RECs (MWh) |
|----------------|----------------------------------|-------------------------|
| Wintec         | 154                              | 154                     |
| <b>Total</b>   |                                  | <b>154</b>              |

### 2.2 2024 Short-term Renewable Energy Purchases

Since early 2011, Riverside has been periodically procuring short term renewable energy products in all three portfolio content categories to satisfy our SB X1-2 renewable mandates. However, in 2024 Riverside did not enter into any new short-term renewable energy contracts.

Riverside has been a project participant in two short-term biomass contracts. In April 2018 Riverside began receiving its proportional share of energy from the ARP Loyalton biomass facility, in partial satisfaction of SB 859. This five-year, multi-party PSA/PPA for biomass energy (involving SMUD, MID and TID, plus four SCPPA members – RPU, APU, LADWP and IID) partially satisfies Riverside’s requirement to contract for 1.4 MW of capacity from CA RPS certified biomass generation facilities consuming Tier 2 and Tier 3 high-hazard forest fuel. Unfortunately, in January 2020 the Loyalton biomass facility declared bankruptcy and ceased producing energy. The five-year contract for this project expired on April 19, 2023.

Likewise, in March 2020 Riverside’s City Council approved a second SB 859 biomass contract with Roseburg Forest Products Company (again, via a multi-party PSA/PPA). This contract, while completing

Riverside’s requirement to contract for 1.4 MW of capacity from CA RPS certified biomass generation facilities, is for SB 859 attributes and plant capacity only. Thus, Riverside does not expect to receive any renewable energy RECs from this contract. (Additional details pertaining to this contract are presented in Appendix A.)

### **2.3 2024 Short-term Renewable Energy Sales**

In 2024, RPU did not sell any energy or RECs from its portfolio of renewable energy resources to any wholesale counterparties.

### **2.4 2024 Long-term Renewable Energy Purchases**

Riverside continues to actively contract for cost effective, new long-term renewable resources. Consistent with this objective, on October 23, 2023, and November 7, 2023, the Public Utilities Board and the City Council approved a new 15-year long-term renewable energy Power Purchase and Sale Agreement (PPSA) for a 125 MW share of renewable wind capacity and energy from the new SunZia Wind Project being developed by Pattern Energy in New Mexico. The project is expected to commence commercial operation on March 31, 2026, and will qualify as a PCC-1 dynamically scheduled renewable resource into the CAISO BAA. The contract is expected to provide 369,000 MWh/year of long-term PCC-1 renewable wind energy into Riverside’s portfolio. The project does not yet have an RPS ID or WREGIS ID, which are required to upload contracts to the RPS Online System. Riverside will upload the contract to the RPS Online System once these IDs are available.

Additionally, on November 9, 2020, and January 5, 2021, the Public Utilities Board and the City Council approved a new 20-year long-term renewable energy PSA through SCPPA for the partial output of baseload geothermal energy from Coso Geothermal Power Holdings, LLC. Riverside successfully began receiving about 10 MW of baseload energy from their China Lake, CA geothermal facility in January 2022; these energy deliveries are scheduled to increase to about 30 MW in January 2027. In 2024, this contract delivered 76,004 MWh of renewable energy into Riverside’s portfolio. Coso qualifies as a long-term PCC-1 in-state renewable resource.

A listing of all the long-term renewable resources in Riverside’s portfolio is shown in Table 2.3 and all these post-2010 contracted resources are discussed in greater detail in Appendix B. All supporting documentation for any contract which was currently on-line as of December 31, 2024, has already been submitted to the CEC.

**Table 2.3.** New long-term renewable contracts and/or resources acquired by the City of Riverside since 2011.

| 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      | Geothermal            | PCC-1 | Yes                   | 5/14/13          |
| CE-2020          | 46          | 338,400             | On-line      | Geothermal            | PCC-1 | Yes                   | 5/14/13          |
| 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           |
| Antelope Big Sky | 10          | 23,500              | On-line      | Solar PV              | PCC-1 | No                    | 4/1/14           |
| Antelope 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       | Geothermal            | PCC-1 | Yes                   | 1/05/21          |
| SunZia Wind      | 125         | 369,000             | 3/31/2026    | Wind                  | PCC-1 | No                    | 11/07/23         |

As of January 1, 2024, eleven of the twelve renewable resources shown in Table 2.3 were on-line and delivering energy to the City of Riverside. Table 2.4 shows the amounts of 2024 generated MWh energy and retired PCC-1 RECs associated with the eleven long-term resources that the City of Riverside has chosen to claim on its 2024 Annual RPS compliance filing. The last column in Table 2.4 also shows an additional 2,948 Columbia II Solar and 709 Tequesquite Solar RECs delayed from 2023 that the City is also now retiring in 2024.

The CalEnergy Geothermal resource (shown as CE 2016/2019/2020 in Table 2.4) requires further discussion. In early 2024, two units in the CalEnergy geothermal portfolio suffered mechanical issues and were taken offline for most of the year for repairs. Due to the extended outage, Riverside received materially fewer RECs from this resource in 2024 compared to history. Nevertheless, Riverside has retired enough RECs throughout Compliance Period 4 to make up for the loss and meet RPS compliance. As of Q4 2024, repairs were completed, and the units returned to normal operation.

Finally, Table 2.5 shows the amounts of 2024 generated MWh energy and PCC-1 RECs retired towards Riverside’s 100% Renewable Energy Tariff (RET) program. In January 2019 Riverside launched its new “100% Renewable Energy Tariff” (100% RET) program. Customers who voluntarily move onto this tariff pay an additional \$0.0129 per kWh premium over OATT to receive 100% renewable energy. This

100% RET option is now open to all Residential and Commercial customers and the renewable energy provided by this 100% RET program comes from four of the contracted resources that are located physically within or nearby Riverside’s service territory.

**Table 2.4.** Generated energy and 2024 WREGIS PCC-1 RECs retired towards Riverside’s primary compliance account, by resource and contract type.

| Project Name (resource technology)  | Contract Type | 2024: Total Energy & RECs (MWh) | 2023: Delayed Retirement RECs (MWh) |
|-------------------------------------|---------------|---------------------------------|-------------------------------------|
| WKN Wind (wind)                     | Long-term     | 15,593                          |                                     |
| Columbia II (solar PV)              | Long-term     | 30,008                          | 2,948                               |
| Cabazon (wind)                      | Long-term     | 6,052 <sup>(1)</sup>            |                                     |
| North Lake (solar PV)               | Long-term     | 38,267                          |                                     |
| CE-2016/2019/2020 (geothermal)      | Long-term     | 497,879                         |                                     |
| Kingbird B (solar PV)               | Long-term     | 39,080                          |                                     |
| Tequesquite (solar PV)              | Long-term     | 11,307 <sup>(2)</sup>           | 709                                 |
| Summer Solar (solar PV)             | Long-term     | 24,562                          |                                     |
| Antelope Big Sky (solar PV)         | Long-term     | 26,986                          |                                     |
| Antelope DSR 1 (solar PV)           | Long-term     | 57,797                          |                                     |
| Coso (geothermal)                   | Long-term     | 76,004                          |                                     |
| <b>Total of All PCC-1 Resources</b> |               | <b>823,535</b>                  | <b>3,657</b>                        |

(1): excludes 1 outstanding REC not yet transferred to RPU.

(2): excludes 44 outstanding RECs not yet transferred to RPU.

**Table 2.5.** Generated energy and 2024 WREGIS PCC-1 RECs retired towards Riverside’s 100% RET compliance account, by resource and contract type.

| 100% RET Program<br>Project Name (resource technology) | Contract Type | 2024: Total Energy & Retired RECs (MWh) |
|--------------------------------------------------------|---------------|-----------------------------------------|
| CE-2016/2019/2020 (geothermal)                         | Long-term     | 4,548                                   |
| Tequesquite (solar PV)                                 | Long-term     | 1,364                                   |
| Cabazon (wind)                                         | Long-term     | 1,818                                   |
| North Lake (solar PV)                                  | Long-term     | 1,364                                   |
| <b>Total of All PCC-1 Resources</b>                    |               | <b>9,094</b>                            |

## 2.5 RPU Adjusted Retail Sales & Retired RECs (Section 3207(c)(2)(I) Narrative)

In CY 2024, Riverside recorded 2,141,863 MWh in retail sales. This total sales figure includes 23,093 MWh of internal consumption and 9,094 MWh of 100% renewable energy sales to RPU customers enrolled in the 100% Renewable Energy Tariff program.

Table 2.6 shows the observed RPS metrics to date for Riverside for CP4 (2021-2024). As shown in Table 2.6, RPU has retired enough RECs to meet the CP4 RPS target, since the sum of the excess REC retirements in 2021, 2022, and 2023 significantly exceed the 2024 REC shortfall amount.

With respect to our internal RPU Electric and Water sales, 2,137 MWh were consumed by our Electric utility division (general services) and 20,956 MWh were consumed by our Water utility division. For the latter division, approximately 90% of the MWh were used for water pumping and treatment operations and the remaining 10% were used for general services. In both divisions, general services power includes power for commercial lighting, office equipment, HVAC equipment, and miscellaneous maintenance facilities.

**Table 2.6.** Observed 2021-2024 CP4 RPS metrics for Riverside.

| RPS Metric                        | 2021      | 2022      | 2023      | 2024      |
|-----------------------------------|-----------|-----------|-----------|-----------|
| Retail Sales                      | 2,114,250 | 2,206,110 | 2,046,191 | 2,141,863 |
| Internal RPU Electric/Water Sales | 29,643    | 28,243    | 23,708    | 23,093    |
| 100% RET Customers                | 2,085     | 8,357     | 8,180     | 9,094     |
| Adjusted Retail Sales             | 2,082,522 | 2,169,510 | 2,014,304 | 2,109,675 |
| Annual RPS Target                 | 35.75%    | 38.50%    | 41.25%    | 44.00%    |
| Corresponding Procurement Target  | 744,502   | 835,261   | 830,900   | 928,257   |
| Applied PCC-0 RECs                | 3,591     | 1,575     | 2,819     | 154       |
| Applied PCC-1 RECs                | 894,314   | 983,229   | 928,535   | 827,192   |
| Applied PCC-2 RECs                | 0         | 0         | 0         | 0         |
| Applied PCC-3 RECs                | 0         | 0         | 0         | 0         |
| Total RECs Applied to Compliance  | 897,905   | 984,804   | 931,354   | 827,346   |
| Excess Procurement PCC-1 RECs     | 153,403   | 149,543   | 100,454   | -100,911  |
| Achieved RPS Level (see Note)     | 43.1%     | 45.4%     | 46.2%     | 39.2%     |

Note: The RPS calculation shown here may be impacted by either the inclusion and/or exclusion of delayed retirement RECs and thus may differ from the reported RPS on our PSD/PCL report.

### 3. Riverside's Renewable Energy Forecasts through 2030

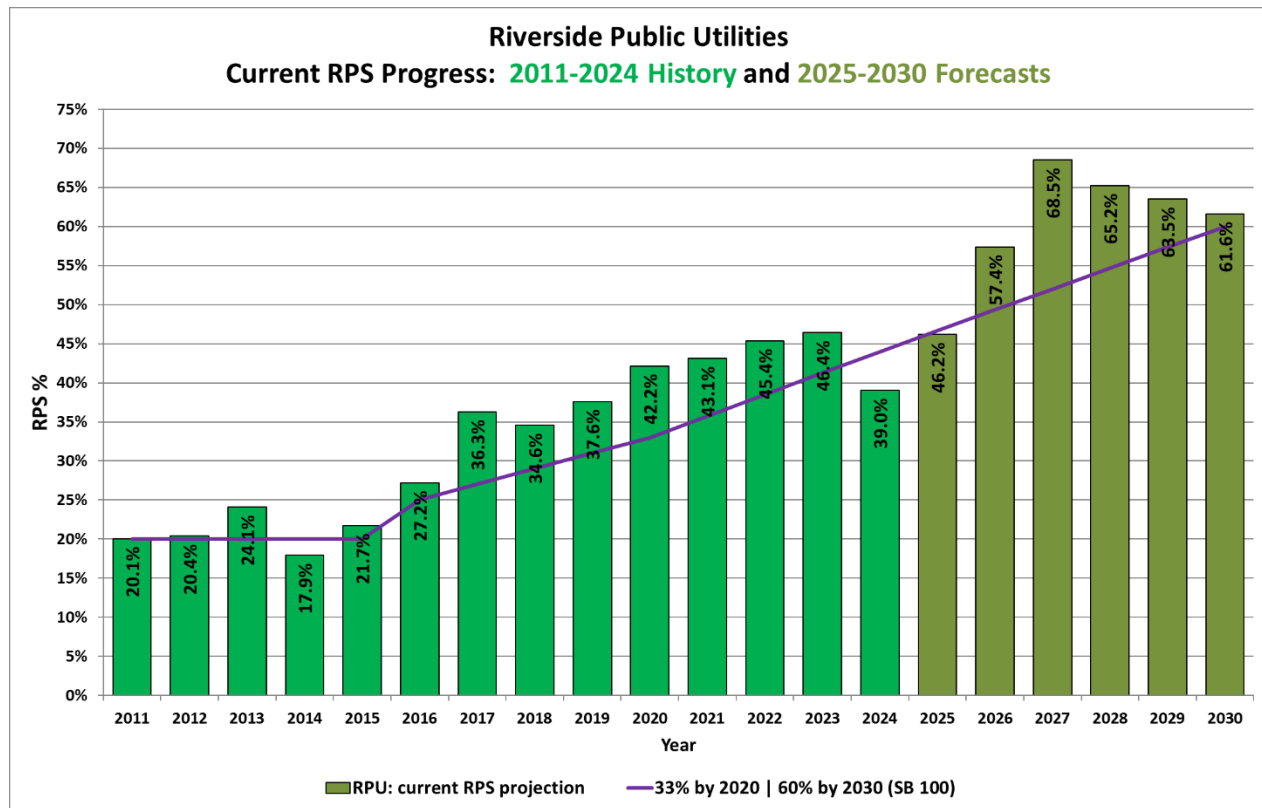
#### 3.1 New Long-term Renewable Energy Purchases: Demonstration of Reasonable Progress (Section 3207(c)(3))

For the last ten years, Riverside has actively contracted for cost effective, new long-term renewable resources with expected CODs in the 2013-2026 timeframe. More details about the twelve new long-term renewable resource contracts shown in Table 2.3 can be found in Appendix B.

Each of these additional contracts were identified and selected for RPU's renewable portfolio using a best-fit, least-cost procurement strategy with the goal of exceeding our 33% RPS mandate by 2020 and meeting our future mandates beyond 2020. Appendix C quantifies the combined effect of these new renewable PPA's on our future procurement needs. As shown in both Appendix C and Figure 3.1 on the next page, these additional PCC-1 resources should supply Riverside with enough new renewable energy to significantly exceed all our minimum RPS and PCC mandates throughout Compliance Periods 4, 5, and 6.

Figure 3.1 shows Riverside's historic and forecasted renewable energy generation levels for the 2011-2030 time frame, along with the expected SB 100 mandated RPS goals. It should be noted that all our active renewable generation projects are currently delivering energy and the Coso geothermal resources already exist. The new SunZia Wind project is currently being developed and is expected to commence commercial operation by March 31, 2026. Likewise, it is also worth noting that all of Riverside's new long-term contracts, including the new SunZia Wind contract, qualify as long-term PCC-1 resources. Hence, Riverside has preserved considerable latitude and flexibility to procure additional short-term PCC-1 products in future compliance years, and/or PCC-2 or PCC-3 products as well, should the need arise.

As shown in Figure 3.1, Riverside expects to receive excess PCC-1 renewable energy above its expected SB 100 compliance obligations through 2030. Riverside intends to bank most of this energy as excess procurement for use in later compliance years but also reserves the right to monetize some of this excess procurement if/when such activities are in the best interest of Riverside ratepayers.



**Figure 3.1.** Riverside’s achieved (2011-2024) and forecasted (2025-2030) renewable energy amounts, by year. Note that the overlaid purple line defines our expected (SB 100) minimum annual RPS mandates and the observed 2024 percentage includes the missing Cabazon and Tequesquite RECs (see Table 2.4).

### 3.2 Reasonable RPS Procurement Progress for Actions Planned (Section 3207(c)(4))

In addition to the signed renewable contracts discussed in section 3.1 and Appendix B, Riverside actively continues to search for additional short- or long-term, cost-effective PCC-1 resources to meet future anticipated energy needs. Riverside continues to actively participate in the annual SCPPA renewable energy RFP process, conduct bilateral discussions with potential project developers and support customer based (i.e., local DG) renewable energy projects. Additionally, Riverside is keenly aware of the 60% by 2030 targets adopted in SB 100. As discussed, Riverside has already contracted for a share of the SunZia Wind project, which will allow Riverside to exceed the SB100 targets through 2030. Staff also continue to focus on contracting for additional longer-term resources with COD dates around/before 2030.

### **3.3 Potential Delay of Timely Compliance (Section 3207(c)(2)(H))**

Riverside does not currently anticipate any delays in meeting future RPS compliance obligations. Additionally, given that the CEC has approved Riverside's claims for approximately 769,000 MWh of additional Historic Carryover (HC) credits, Riverside can still meet its minimum compliance obligations even under a catastrophic resource failure scenario. Additionally, Riverside anticipates having sufficient excess RPS compliance credits to account for any significant generation outage events.

### **3.4 Actions Taken or Planned to Ensure Timely Compliance (Section 3207(c)(2)(H))**

As documented in Appendices A and B, under the direction of Riverside's Public Utilities Board and City Council, Riverside has already contracted for enough additional energy from eligible renewable resources to ensure that Riverside comfortably exceeds all SB 100 RPS mandates through 2030. The ROSA Division within Riverside Public Utilities continues to focus on monitoring our current portfolio of contracts to ensure that they deliver power at or near their expected energy levels. Development milestones for the SunZia Wind project will also be monitored to ensure the project comes online as scheduled. Finally, as discussed in section 3.2, the ROSA Division intends to continue to actively identify new or existing renewable resources that can be used to increase Riverside's renewable energy percentages beyond 2030. More specifically, ROSA staff will continue to seek to identify and procure contracts that are commercially viable, enhance and diversify the RPU resource portfolio, mitigate future regulatory risks, reduce Riverside's carbon footprint and optimize renewable procurement content category requirements in the most cost-effective manner possible.

## **Supplemental Appendices**

**Appendix A.** Details concerning the short-term renewable resource contracts discussed in section 2.2.

**Appendix B.** Details concerning the long-term renewable resource contracts discussed in section 2.4.

**Appendix C.** RPU RPS Compliance Period and Portfolio Content Category accounting spreadsheet.

## Appendix A.

Details concerning the short-term renewable resource contracts discussed in section 2.2.

- The Public Utilities Board and City Council approved a five-year term biomass project with American Renewable Power-Loyalton Cogen, LLC on January 8, 2018, and January 23, 2018, respectively, through Riverside's participation in the Southern California Public Power Authority (a.k.a. "ARP-Loyalton Biomass"). This project was procured to meet the requirements of Senate Bill 859, which required specific utilities to procure their proportionate share of potential biomass-fueled resources utilizing high hazard fuel sources. The ARP-Loyalton Biomass project achieved full commercial operation in April 2018 and this biomass project qualifies as a PCC-1 renewable resource scheduled into a California balancing authority. Unfortunately, in January 2020 the Loyalton biomass facility declared bankruptcy and ceased producing energy. The five-year contract for this project expired on April 19, 2023.
- The Public Utilities Board and City Council approved a five-year term, biomass project with Roseburg Forest Products Company on February 24, 2020 and March 17, 2020, respectively, through Riverside's participation in the Southern California Public Power Authority (a.k.a. "Roseburg Biomass"). This project was procured to meet the remaining requirements of Senate Bill 859, which required specific utilities to procure their proportionate share of potential biomass-fueled resources utilizing high hazard fuel sources. The Roseburg Biomass project is for SB 859 attributes and plant capacity only. Thus, Riverside does not expect to receive any renewable energy RECs from this contract, which will expire on February 15, 2026.

## Appendix B.

Details concerning the long-term renewable resource contracts discussed in section 2.4.

- The Public Utilities Board and City Council approved a new long-term renewable wind PPA with WKN Wagner Limited on November 16, 2012, and December 18, 2012, respectively, for 6 MW of wind turbine capacity in Riverside County, CA. The WKN wind project began commercial operation at the end of December 2012 and typically generates between 13,000 to 16,000 MWh of energy annually. WKN qualifies as a PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a new long-term renewable energy PPA with North Lake Solar L.P. on September 21, 2012, and October 9, 2012, respectively, to construct and operate a 20 MW utility scale solar PV project in Hemet, CA. The North Lake Solar project reached COD in July 2015. On a prospective basis, this project is expected to generate about 47,000 MWh of renewable energy annually. North Lake Solar qualifies as a PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a long-term, utility scale solar PV project with Silverado Inc. on December 7, 2012, and January 8, 2013, respectively, through Riverside's participation in the Southern California Public Power Authority. This project was subsequently amended to facilitate a later COD date and re-permitted to encompass two distinct sites (i.e., Summer Solar and Antelope Big Sky). Additionally, this contract was subsequently sold by Silverado to S-Power. These re-permitted S-Power solar PV projects achieved full operation in July and August 2016 and typically generate a combined 55,000 MWh of renewable energy annually. Both S-Power projects qualify as PCC-1 in-state renewable resources.
- The Public Utilities Board and the City Council approved a new long-term PPA with Cal-Energy L.L.C. on May 3, 2013, and May 14, 2013, respectively, to incrementally procure additional geothermal resources from a portfolio of up to ten Cal-Energy (CE) geothermal generation units to meet Riverside's future base-load renewable energy needs. This new geothermal PPA began providing an additional 20 MW of base-load energy in calendar year 2016 and increased to an additional 40 MW in calendar year 2019. Upon the expiration of our current Salton Sea 5 contract, this new PPA has ramped up to 86 MW and should generate approximately 618,000 MWh/year (at an assumed 82% CF) until the expiration of the new contract in 2039. Riverside began receiving the first 20 MW of this new portfolio energy in February 2016, the second 20 MW component in January 2019 and the final 46 MW component in June 2020. The energy received from the CE geothermal portfolio qualifies as PCC-1 renewable energy (from existing in-state renewable resources).

- The Public Utilities Board and the City Council approved two long-term, utility scale solar PV projects with RE Clearwater LLC and RE Columbia II LLC on September 6, 2013, and September 24, 2013, respectively, through Riverside’s participation in the Southern California Public Power Authority (a.k.a. “Recurrent Projects”). The Columbia II solar PV project began producing test energy in late November 2014 and reached full commercial operation in December 2014. This facility supplies Riverside with about 31,000 MWh of energy annually and qualifies as a PCC-1 in-state renewable resource. In early 2014, the Clearwater project was declared to be in default, due to the inability of the developer to secure the necessary county land use permits. This latter contract was terminated in 2015.
- The Public Utilities Board and the City Council approved a long-term, utility scale solar PV project with Kingbird Solar B, LLC on September 6, 2013, and September 24, 2013, respectively, through Riverside’s participation in the Southern California Public Power Authority (a.k.a. “First Solar”). This Kingbird B project achieved full commercial operation on April 30, 2016, and typically generates about 41,000 MWh of renewable energy annually. This solar PV project qualifies as a PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a new long-term renewable energy PPA with FPL Energy Cabazon Wind, LLC on November 15, 2013, and December 3, 2013, respectively, to purchase the full wind energy output from the existing 39 MW Cabazon wind farm. This wind farm has been operating since 1999 and typically generates between 55,000 to 83,000 MWh of renewable energy annually. However, in September 2020 this wind farm experienced a catastrophic turbine failure event, which caused the facility to shut down for 90 days. The facility changed ownership in 2023, and on September 1, 2023, Riverside executed an amendment (Amendment No. 1) to the original contract with the new owner to extend the original agreement for 3 years through December 31, 2027. Currently, turbines at this facility are undergoing safety overhauls and refurbishment. To help facilitate repair of the facility, on October 18, 2024, Riverside executed a second amendment (Amendment No. 2) to the original contract with the new owner to prepay for energy generated from this facility at a discount. While currently below historical levels, energy production from the facility is expected to recover as repairs are completed. The Cabazon wind farm qualifies as a PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a new long-term renewable energy PPA with Solar Star CA XXXI, LLC on February 7, 2014, and March 4, 2014, respectively, to construct and operate a 7.3 MW utility scale solar PV project on the Tequesquite landfill in the city of Riverside, CA (a.k.a. “Tequesquite”). Tequesquite became fully operational in early September 2015 and the project typically generates about 14,800 MWh of renewable energy annually. However, in 2021 the project suffered a major copper theft incident that forced the facility to go off-line for five months of repairs. (All repairs have now been completed, and the facility is functioning normally.) Tequesquite qualifies as both a PCC-1 in-state renewable resource and a local utility operated DER.

- The Public Utilities Board and the City Council approved a long-term, utility scale solar PV project with sPower on June 19, 2015, and July 28, 2015, respectively, through Riverside’s participation in the Southern California Public Power Authority (a.k.a. “Antelope DSR 1”). Riverside receives 50% of the output power from this 50 MW solar PV project, and the associated PPA includes an additional option for SCPPA participants to develop an on-site energy storage facility at some future date. This Antelope DSR 1 project achieved full operation in late November 2016 and typically delivers about 65,850 MWh of renewable energy annually to Riverside. This solar PV project qualifies as a PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a new 15-year long-term renewable energy PPA with Camino Solar LLC on November 25, 2019, and December 17, 2019, for a 44 MW solar PV facility coupled with an 11 MW / 44 MWh Battery Energy Storage System (BESS). This PV/BESS system was scheduled to begin commercial operation by April 2022 but contracting delays in 2020 caused this COD to shift out to May 2023. Then in April 2021 the developer of this project informed Riverside that the project could not be built for the contracted price and additional PV and lithium battery supply chain disruptions in the fall of 2021 rendered the proposed project untenable. On February 24, 2022, Riverside and Avangrid mutually agreed to terminate this PPA.
- The Public Utilities Board and the City Council approved a new 20-year long-term renewable energy PSA through SCPPA on November 9, 2020, and January 5, 2021, for the partial output of baseload geothermal energy from Coso Geothermal Power Holdings, LLC. Riverside begun receiving about 10 MW of baseload energy from their China Lake, CA geothermal facility in January 2022; these energy deliveries are scheduled to increase to about 30 MW in January 2027. Overall, this contract is expected to deliver about 83,000 MWh of renewable energy annually beginning in 2022, increasing to 249,000 MWh annually on/after 2027. Coso is expected to qualify as a long-term PCC-1 in-state renewable resource.
- The Public Utilities Board and the City Council approved a new 15-year long-term renewable energy PPSA on October 23, 2023, and November 7, 2023 for a 125 MW share of renewable wind capacity and energy from the new SunZia Wind Project being developed by Pattern Energy. The project is expected to commence commercial operation on March 31, 2026, and will qualify as a PCC-1 dynamically scheduled renewable resource. The contract is expected to provide 369,000 MWh/year of long-term PCC-1 renewable wind energy into Riverside’s portfolio. The project does not yet have an RPS ID or WREGIS ID, which are required to upload contracts to the RPS Online System. Riverside will upload the contract to the RPS Online System once these IDs are available.

|    | A                                                                                                                       | B                                    | C                                  | D                           | E      | F            | G       | H          | I       | J       | K       | L       | M       | N       | O       | P       | Q       | R       | S       | T       | U       | V       | W       | X       | Y       | Z       | AA      | AB      |  |  |  |
|----|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|-----------------------------|--------|--------------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|--|
| 1  | APPENDIX C. RPU RPS WorkBook - CP & PCC Accounting Spreadsheet.                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 2  | Note: All energy units are on a GWh basis. Renewable resource assets with annual energy production < 500 MWh not shown. |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 3  |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 4  | PCC                                                                                                                     | Resource                             | Contract Length<br>(1 = 10+ years) | Fuel Source<br>(technology) |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 5  |                                                                                                                         |                                      |                                    |                             | 2011   | 2012         | 2013    | CP1        | 2014    | 2015    | 2016    | CP2     | 2017    | 2018    | 2019    | 2020    | CP3     | 2021    | 2022    | 2023    | 2024    | 2025    | 2026    | 2027    | 2028    | 2029    | 2030    |         |  |  |  |
| 6  |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 7  |                                                                                                                         |                                      |                                    |                             | 0      | Salton Sea 5 | n/a     | geothermal | 348.73  | 291.35  | 289.86  | 929.94  | 291.98  | 338.77  | 318.47  | 949.22  | 328.12  | 350.57  | 321.23  | 66.67   | 1066.59 |         |         |         |         |         |         |         |  |  |  |
| 8  |                                                                                                                         |                                      |                                    |                             | 0      | Wintec       | n/a     | wind       | 4.10    | 4.00    | 4.36    | 12.46   | 3.93    | 3.97    | 3.84    | 11.74   | 3.88    | 3.15    | 3.08    | 3.77    | 13.88   | 3.59    | 1.58    | 2.82    | 0.15    |         |         |         |  |  |  |
| 9  | 0                                                                                                                       | Short-term Sales                     | n/a                                | geothermal                  |        |              |         |            |         |         | -75.00  | -75.00  | 0.00    | -107.00 | -125.00 | 0.00    | -232.00 |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 10 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 11 | Total                                                                                                                   |                                      |                                    |                             | 352.83 | 295.35       | 294.22  | 942.40     | 295.91  | 342.75  | 247.31  | 885.96  | 332.00  | 246.72  | 199.30  | 70.44   | 848.46  | 3.59    | 1.58    | 2.82    | 0.15    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |  |
| 12 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 13 | 1                                                                                                                       | WKN Wind                             | 1                                  | wind                        | 0.00   | 0.00         | 18.70   | 18.70      | 20.87   | 16.81   | 19.17   | 56.85   | 17.62   | 13.78   | 15.75   | 13.88   | 61.02   | 14.40   | 15.18   | 13.84   | 15.59   | 17.10   | 17.10   | 17.10   | 17.10   | 17.10   | 17.10   |         |  |  |  |
| 14 | 1                                                                                                                       | Covanta (short-term)                 | 0                                  | waste-to-energy             | 0.00   | 12.42        | 149.91  | 162.33     |         |         |         | 0.00    |         |         |         |         | 0.00    |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 15 | 1                                                                                                                       | North Lake                           | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 19.61   | 47.72   | 67.33   | 42.00   | 46.05   | 42.58   | 43.14   | 173.77  | 39.04   | 29.69   | 29.09   | 39.63   | 41.00   | 40.50   | 40.00   | 39.50   | 39.00   | 38.50   |         |  |  |  |
| 16 | 1                                                                                                                       | Antelope Big Sky                     | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 8.64    | 0.00    | 28.34   | 28.78   | 27.72   | 26.18   | 92.50   | 25.65   | 26.02   | 22.88   | 26.99   | 26.74   | 26.49   | 26.24   | 25.99   | 25.74   | 25.49   |         |  |  |  |
| 17 | 1                                                                                                                       | Summer Solar                         | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 11.75   | 11.75   | 28.15   | 28.66   | 27.42   | 27.26   | 111.49  | 27.86   | 27.22   | 20.44   | 24.56   | 24.31   | 24.06   | 23.81   | 23.56   | 23.31   | 23.06   |         |  |  |  |
| 18 | 1                                                                                                                       | CalEnergy (Portfolio)                | 1                                  | geothermal                  | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 119.67  | 119.67  | 132.25  | 145.68  | 271.39  | 526.14  | 1075.46 | 601.05  | 641.18  | 634.58  | 502.43  | 618.00  | 618.00  | 618.00  | 618.00  | 618.00  | 618.00  |         |  |  |  |
| 19 | 1                                                                                                                       | Cabazon                              | 1                                  | wind                        | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 57.04   | 57.91   | 114.95  | 58.74   | 63.69   | 47.92   | 33.88   | 204.23  | 42.47   | 17.22   | 6.67    | 7.87    | 21.75   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   |         |  |  |  |
| 20 | 1                                                                                                                       | Kingbird B                           | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 30.60   | 30.60   | 41.49   | 41.31   | 38.33   | 40.00   | 161.13  | 40.93   | 41.80   | 38.91   | 39.08   | 39.85   | 39.65   | 39.45   | 39.25   | 39.05   | 38.85   |         |  |  |  |
| 21 | 1                                                                                                                       | Columbia II                          | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 32.05   | 32.86   | 64.91   | 31.25   | 30.52   | 31.19   | 31.66   | 124.62  | 30.85   | 28.98   | 25.43   | 30.01   | 29.35   | 29.20   | 29.05   | 28.90   | 28.75   | 28.60   |         |  |  |  |
| 22 | 1                                                                                                                       | Tequesquite                          | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 5.36    | 15.10   | 20.46   | 14.69   | 14.88   | 14.48   | 13.89   | 57.93   | 8.33    | 13.12   | 13.19   | 12.72   | 14.20   | 14.10   | 14.00   | 13.90   | 13.80   | 13.70   |         |  |  |  |
| 23 | 1                                                                                                                       | Antelope DSR 1                       | 1                                  | solar PV                    | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 3.34    | 3.34    | 66.06   | 66.25   | 64.18   | 64.25   | 260.74  | 65.82   | 64.11   | 53.33   | 57.80   | 57.40   | 57.00   | 56.60   | 56.20   | 55.80   | 55.40   |         |  |  |  |
| 24 | 1                                                                                                                       | Coso Geothermal                      | 1                                  | geothermal                  | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 86.80   | 82.03   | 76.00   | 83.00   | 83.00   | 249.00  | 249.00  | 249.00  | 249.00  |         |  |  |  |
| 25 | 1                                                                                                                       | SunZia Wind                          | 1                                  | wind                        |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         | 258.00  | 369.00  | 369.00  | 369.00  | 369.00  | 369.00  |         |  |  |  |
| 26 | 1                                                                                                                       | Loyalton Biomass                     | 0                                  | biomass                     | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 2.04    | 1.33    | 0.00    | 3.37    | 0.00    | 0.00    | 0.00    |         |         |         |         |         |         |         |         |  |  |  |
| 27 | 1                                                                                                                       | Salton Sea 5 Inc                     | 0                                  | geothermal                  | 0.00   | 0.00         | 0.00    | 0.00       | 0.00    | 0.00    | 0.00    | 0.00    | 6.16    | 10.20   | 0.33    | 1.11    | 17.80   |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 28 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 29 | Total                                                                                                                   |                                      |                                    |                             | 0.00   | 12.42        | 168.61  | 181.03     | 20.87   | 130.87  | 346.76  | 489.86  | 466.75  | 491.84  | 582.60  | 821.39  | 2344.07 | 896.40  | 991.31  | 940.37  | 832.67  | 972.70  | 1236.10 | 1511.25 | 1480.40 | 1478.55 | 1476.70 |         |  |  |  |
| 30 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 31 | 2                                                                                                                       | Ibedrola                             | 0                                  | wind                        | 20.38  | 0.00         | 0.00    | 20.38      | 0.00    | 0.00    | 0.00    | 0.00    |         |         |         |         | 0.00    |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 32 | 2                                                                                                                       | PowerEx                              | 0                                  | wind                        | 0.00   | 9.90         | 3.24    | 13.14      | 0.00    | 0.00    | 0.00    | 0.00    |         |         |         |         | 0.00    |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 33 | 2                                                                                                                       | PacifiCorp                           | 0                                  | wind                        | 0.00   | 0.00         | 51.53   | 51.53      | 0.00    | 0.00    | 0.00    | 0.00    |         |         |         |         | 0.00    |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 34 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 35 | Total                                                                                                                   |                                      |                                    |                             | 20.38  | 9.90         | 54.77   | 85.05      | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |  |
| 36 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 37 | 3                                                                                                                       | TREC's                               | 0                                  | various                     | 37.50  | 125.00       | 0.00    | 162.50     | 75.00   | 0.00    | 0.00    | 75.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |  |
| 38 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 39 | Initial<br>Load &<br>RPS<br>Calculations                                                                                | Retail Load (adj for internal sales) |                                    |                             |        | 2047.28      | 2171.96 | 2147.94    | 6367.18 | 2184.64 | 2179.43 | 2182.81 | 6546.88 | 2200.69 | 2136.45 | 2078.53 | 2115.73 | 8804.90 | 2084.61 | 2177.87 | 2022.48 | 2118.77 | 2093.90 | 2145.57 | 2200.73 | 2263.89 | 2322.69 | 2389.30 |  |  |  |
| 40 |                                                                                                                         | 100% RET Adjustment                  |                                    |                             |        |              |         |            |         |         |         |         |         |         |         | -0.08   | -0.18   |         | -2.09   | -8.36   | -8.18   | -9.09   | -10.50  | -10.50  | -10.50  | -10.50  | -10.50  | -10.50  |  |  |  |
| 41 |                                                                                                                         | % Mandate                            |                                    |                             |        | 20.00%       | 20.00%  | 20.00%     |         | 20.00%  | 20.00%  | 25.00%  |         | 27.00%  | 29.00%  | 31.00%  | 33.00%  |         | 35.75%  | 38.50%  | 41.25%  | 44.00%  | 46.67%  | 49.33%  | 52.00%  | 54.67%  | 57.33%  | 60.00%  |  |  |  |
| 42 |                                                                                                                         | RPS Target                           |                                    |                             |        | 409.46       | 434.39  | 429.59     | 1273.44 | 436.93  | 435.89  | 545.70  | 1418.52 | 594.19  | 619.57  | 644.34  | 698.19  | 2556.29 | 744.50  | 835.26  | 830.90  | 928.26  | 972.32  | 1053.23 | 1138.92 | 1231.93 | 1325.58 | 1427.28 |  |  |  |
| 43 |                                                                                                                         | Post PCC-0 Target                    |                                    |                             |        | 56.63        | 139.04  | 135.37     | 331.04  | 141.02  | 93.14   | 298.39  | 532.56  | 262.19  | 372.85  | 445.04  | 627.75  | 1707.83 | 740.91  | 833.68  | 828.08  | 928.10  | 972.32  | 1053.23 | 1138.92 | 1231.93 | 1325.58 | 1427.28 |  |  |  |
| 44 |                                                                                                                         | % PCC1 Mandate (>)                   |                                    |                             |        |              |         |            | 165.52  |         |         |         | 346.16  |         |         |         |         | 1280.87 | 555.68  | 625.26  | 621.06  | 696.08  | 729.24  | 789.92  | 854.19  | 923.95  | 994.18  | 1070.46 |  |  |  |
| 45 | % PCC3 Mandate (<)                                                                                                      |                                      |                                    |                             |        |              |         | 82.76      |         |         |         | 79.88   |         |         |         |         | 170.78  | 74.09   | 83.37   | 82.81   | 92.81   | 97.23   | 105.32  | 113.89  | 123.19  | 132.56  | 142.73  |         |  |  |  |
| 46 |                                                                                                                         |                                      |                                    |                             |        |              |         |            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |  |
| 47 | Initial<br>summation<br>of RPS<br>energy                                                                                | Achieved PCC1                        |                                    |                             |        | 0.00         | 12.42   | 168.61     | 181.03  | 20.87   | 130.87  | 346.76  | 489.86  | 466.75  | 491.84  | 582.60  | 821.39  | 2344.07 | 896.40  | 991.31  | 940.37  | 832.67  | 972.70  | 1236.10 | 1511.25 | 1480.40 | 1478.55 | 1476.70 |  |  |  |
| 48 |                                                                                                                         | Achieved PCC2                        |                                    |                             |        | 20.38        | 9.90    | 54.77      | 85.05   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |  |
| 49 |                                                                                                                         | Achieved PCC3                        |                                    |                             |        | 37.50        | 125.00  | 0.00       | 162.50  | 75.00   | 0.00    | 0.00    | 75.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |         |         |         |  |  |  |