

# PacifiCorp - Stakeholder Feedback Form

## 2021 Integrated Resource Plan

PacifiCorp (the Company) requests that stakeholders provide feedback to the Company upon the conclusion of each public input meeting and/or stakeholder conference calls, as scheduled. PacifiCorp values the input of its active and engaged stakeholder group, and stakeholder feedback is critical to the IRP public input process. PacifiCorp requests that stakeholders provide comments using this form, which will allow the Company to more easily review and summarize comments by topic and to readily identify specific recommendations, if any, being provided. Information collected will be used to better inform issues included in the 2021 IRP, including, but not limited to the process, assumptions, and analysis. In order to maintain open communication and provide the broader Stakeholder community with useful information, the Company will generally post all appropriate feedback on the IRP website unless you request otherwise, below.

Date of Submittal 2/4/2020

\*Name: Ernie Rogers

Title: Residential Measure List Draft Response

\*E-mail: ernie.e.rogers@gmail.com

Phone: 801-899-5867

\*Organization: Utah Valley Earth Forum, UVEF.org

Address: 1735 Cherokee Dr.

City: Pleasant Grove State: UT Zip: 84062

Public Meeting Date comments address: Click here to enter date.  Check here if not related to specific meeting

List additional organization attendees at cited meeting: Click here to enter text.

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**\*IRP Topic(s) and/or Agenda Items:** List the specific topics that are being addressed in your comments.

Possible additions to the 2021 Residential Measure list

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Check here if any of the following information being submitted is copyrighted or confidential.

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Check here if you do **not** want your Stakeholder feedback and accompanying materials posted to the IRP website.

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**\*Respondent Comment:** Please provide your feedback for each IRP topic listed above.

The following items are ones that may not be on the list, and that I thought are important aspects of residential energy savings.

How does the Soleil-Lofts project in Herriman, Utah, fit in? Where is residential solar?

**PacifiCorp Response:**

- Residential solar is modeled within the separate Private Generation study.
- Applied Energy Group (AEG) and PacifiCorp will identify ways that non-solar aspects of Soleil are incorporated into other energy efficiency (EE) and demand response (DR) measures within the Conservation Potential Assessment (CPA). For example, customer sited storage measures will be informed by the characteristics of this project.

Residential energy storage and control, residential load management

**PacifiCorp Response:**

- Please see the DR measure list presentation uploaded to the Integrated Resource Plan (IRP)'s public input process webpage, particularly slides three and four, here [www.pacifiCorp.com/energy/integrated-resource-plan/support](http://www.pacifiCorp.com/energy/integrated-resource-plan/support).

Residential cogeneration

**PacifiCorp Response:**

\* Required fields

- Throughout their research, AEG has not identified any technologically mature residential-scale cogeneration systems. If Utah Valley Earth Forum (UVEF) has access to a peer-reviewed source that provides details on cost, lifetime, and real-world equipment performance, they will consider adding this to the Waste Heat to Power and Regenerative Technologies task within the CPA.

Rezoning to multiple family, encouraging small and affordable housing developments

**PacifiCorp Response:**

- The analysis of a measure of this scale would be outside the scope of the CPA. However, advanced new construction designs are being modeled by AEG, including zero-net-energy ready homes.
- The modeling of the electrification of transportation itself is not within the CPA scope.

Electric cars and charging stations

**PacifiCorp Response:**

- Please see residential EE measure “RE30”, “Electric Vehicle Supply Equipment” and the previously mentioned DR slides (particularly slide three) for the locations where electric vehicle measures are identified.
- The modeling of the electrification of transportation itself is not within the CPA scope.

Home heat loss surveys and weatherization programs

**PacifiCorp Response:**

- Heat loss surveys do not save energy on their own, but instead lead to the implementation of efficiency measures identified within this list. Therefore, including them would be double-counting.
- The role of the CPA is to assess measure-level potential. Please see residential EE measures “RM001” through “RM022” for a list of weatherization measures that could be implemented within a demand-side management program.

Low transmission roof coatings

**PacifiCorp Response:**

- AEG will consider adding this, or a similar measure, to the CPA.

Exterior shutters and shading

**PacifiCorp Response:**

- AEG has not identified a credible source for this measure. However, AEG began modeling cellular window shades within the 2019 CPA, which would have a similar effect.
- Please see residential EE measure, “RM021”, “Windows – Cellular Shades”.
- Also see residential EE measure, “RM034”, “HVAC – Plant Shade Trees” which can provide exterior shading.

Fresh air heat exchangers

**PacifiCorp Response:**

- Please see residential EE measure, “RM025”, “Space Heating - Heat Recovery Ventilator”.

Passive solar retrofits and attached greenhouses

**PacifiCorp Response:**

- Passive solar is modeled for nonresidential buildings but is not modeled for homes. Due to residential occupancy patterns (particularly work schedules), most residential lighting energy is consumed during the evening where passive solar would have no impact.

- There is insufficient market data to support development of a greenhouse measure which would likely have limited applicability.

Phaseout of gas furnaces and water heaters

**PacifiCorp Response:**

- This is electrification, not EE or DR as they are defined within the CPA.

Residential storage of heat and cold

**PacifiCorp Response:**

- For cooling, please see the “Thermal Energy Storage” measure on slide four of the DR measure list presentation.
- AEG has not identified a residential space heating energy storage measure that has seen success in utility programs and instead recommends considering electrochemical battery energy storage which has a higher likelihood of being adopted.

Landscaping for energy and water conservation

**PacifiCorp Response:**

- This measure was excluded from the CPA as it primarily saves water and would be adopted for non-energy reasons.

Rooftop solar, electric vehicles, and load management as a system

**PacifiCorp Response:**

- The modeling of rooftop solar is outside the scope of the CPA. However, the impacts that solar-tied storage may have on the grid as part of the DR analysis will be considered. This topic was addressed during the February 18, 2020 public input meeting, technical workshop.

Resilience strategies at the residential level. Distributed generation and microgrids

**PacifiCorp Response:**

- This analysis is outside the scope of the CPA; however, the additional grid services that behind-the-meter DR programs could provide, which might be an important piece of any grid transformation efforts, are being considered.

Combined solar PV and heat

**PacifiCorp Response:**

- The modeling of rooftop solar is outside the scope of the CPA. It is addressed in the Private Generation study.