Clean Energy Implementation Plan
Engagement Series: Vulnerable Populations Workshop #2

August 28, 2024

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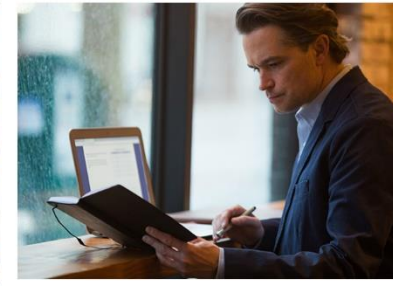
Washington Vulnerable Populations Workshop II
September

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- Questions are welcome at any time
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Vulnerable Populations

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What we would like to accomplish today

- Detail current vulnerable populations and Condition 14 settlement vulnerability factors

- Review approach to defining census tracts that are vulnerable

- Discuss options for changes to geographic methodology and anticipated outcomes

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- Introduced CBI Settlement Condition 14 to review and improve the Company's approach to identifying and tracking Vulnerable Populations (VPs)
  - Considered settlement vulnerability factors (SVF) like sensitive populations, energy security/insecurity, and other socioeconomic factors

- Reviewed current approach to defining VPs
  - Defining Highly Impacted Communities (HICs), VPs
  - 18 census tracts in Yakima and 1 in Walla Walla show an overall Environmental Health Disparities ranking of 9 or greater
  - 6 census tracts in Yakima and 0 in Walla Walla are located on tribal lands
  - A total of 20 census tracks in Pacific Power's service territory are HICs

- Compared approach to other utilities

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Feedback Received on Current Methodology

- Pacific Power should not have to choose one methodology or the other. Some factors are better tracked geographically, others via surveying efforts
- The method of locating vulnerable populations does not matter as much as the impact of our policy

- There may be issues with using the survey to track impacts on small populations (response rate, survey implementation, etc.)
- Being too granular with geographic VPs may not be worthwhile due to Pacific Power's small service area
- The geographic target area should be scaled to the level of investment
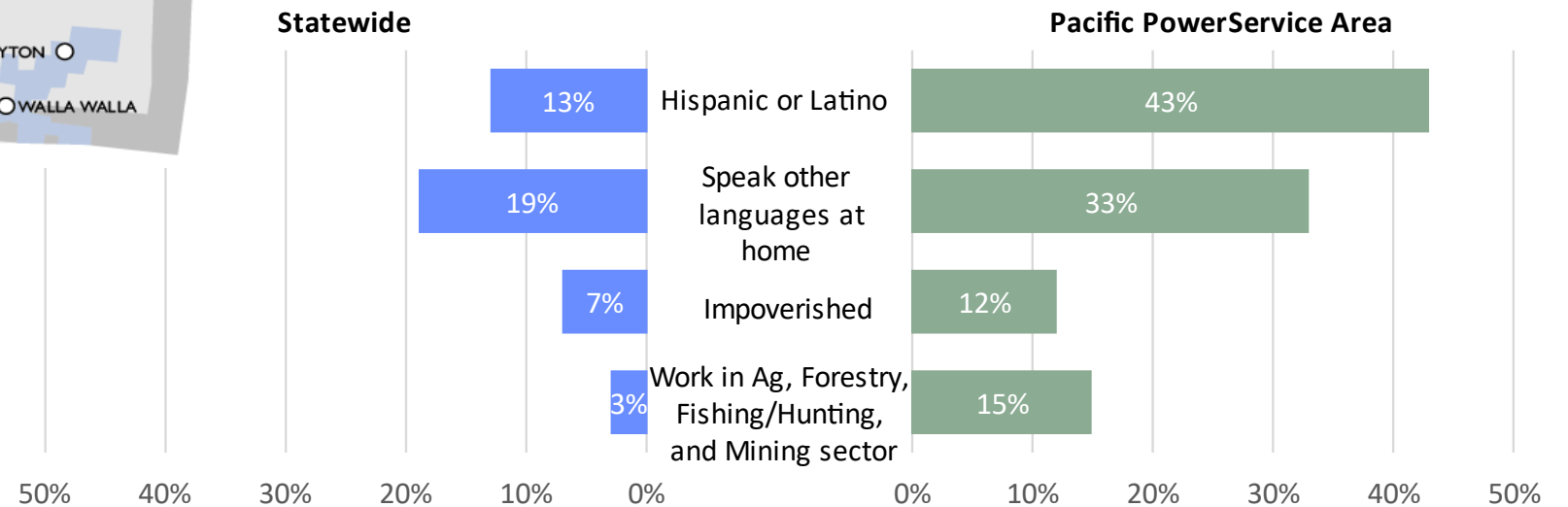
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Summer Updates

- Propose using geographic vulnerable population rather than single characteristic approach
  - Synthesizes across multiple factors to allow more streamlined tracking
  - Focuses impact tracking on most intensive need
  - Easier to tie impacts to specific areas

- Conducted Initial Geographic Vulnerable Population Analysis
  - Assessed settlement vulnerability factors and existing vulnerable population data
  - Undertook data collection effort
  - Created composite scores based on vulnerability factor ranking
  - Determined initial vulnerable geographies based on composite score ranking

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Pacific Power Washington Service Area

Approximately 114,000 residential customers throughout Benton, Columbia, Garfield, Kittitas, Yakima, and Walla Walla counties

Largely non-urban areas with some of the lowest median income levels in the state

Statewide   **Pacific PowerService Area**

Statewide	Category	Pacific PowerService Area
13%	Hispanic or Latino	43%
19%	Speak other languages at home	33%
7%	Impoverished	12%
3%	Work in Ag, Forestry, Fishing/Hunting, and Mining sector	15%

50% 40% 30% 20% 10% 0%   0% 10% 20% 30% 40% 50%

WASHINGTON

YAKIMA
TOPPENISH
SUNNYSIDE
DAYTON
WALLA WALLA

Source: Pacific Power 2021 Washington Clean Energy Implementation Plan

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- The Washington Department of Health (DOH) Environmental Health Disparities (EHD) methodology was used as a framework for Pacific Power's geographic methodology
- The DOH uses 4 categories of variables for the Environmental Health Disparity Score:
  - Environmental exposures
  - Environmental effects
  - Sensitive populations
  - Socioeconomic factors

- Washington defines **highly impacted communities** (HICs) as census tracts that meet at least one of two qualifying criteria:
  - The census tract earns a 9 or 10 Environmental Health Disparity Score from the Washington Department of Health (DOH); or
  - The census tract is covered or partially covered by "Indian Country" as defined in 18 U.S.C. Sec. 1151

Vulnerable Population Geographic Methodology

Pacific Power's Adapted Methodology:

- Directionality of variables were determined
  - For example, a lower percentage for access to internet would indicate vulnerability, while a higher percentage of gas-heated homes would indicate vulnerability

- All Washington census tracts were ranked from least impacted to most impacted for 32 variables
  - Disconnections and arrearages are available only for Pacific Power's service area

- Tribal lands, Qualified Census Tracts (QCTs), and Economic Distressed Communities (EDC) were not used in ranking. Automatically promoted to 10 if flagged

- The average rank was calculated for each census tract. Averages were used to create decile scores (1 to 10)

- Unlike HICs, all variables were assigned equal weight so variables like SVF 1 – Disability and SVF 8 – Housing Burden were excluded as they were already measured in other factors

- Census tracts with a score of 9 or 10 considered vulnerable

- 2010 census tract definition was used

A census tract is considered a QCT if 50% of households with incomes below 60% Area Modified Gross Income (AMGI) or have a poverty rate ≥ 25%

A census tract is an EDC if any of the following criteria exists:

1. has at least 20 percent of very-low income households (<50% of median family income) spending more than 50 percent of income on housing,

2. considered an "Opportunity Zone" under 26 U.S. Code Section 1400Z-1,

3. is a Low-Income Housing Tax Credit Qualified Census Tract,

4. if greater than 20 percent of households have incomes below the poverty rate with a rental vacancy rate of at least 10 percent,

5. greater than 20% of households have income below the poverty rate with a homeownership vacancy rate of at least 10%, or

6. if the census tract is an "Underserved Rural Area"

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Pacific Power's Current Vulnerable Populations

Vulnerable Populations			
1	Households with high school diploma or lower educational attainment	12	Immigration status (outside of US citizen)
2	Older Adults (65+ yrs)	13	People who speak limited English
3	Young Children (5 yrs or under)	14	Renters
4	People who have a hearing impairment	15	Multi-generational households
5	People with a disability	16	Multi-family households
6	People with medical equipment at home	17	People experiencing homelessness
7	Diverse supplier business owners	18	People living in rural areas
8	Energy burdened	19	People living in different land statuses (e.g., land trust vs. fee patent with different regulatory requirements)
9	Asset Limited, Income Constrained, Employed (ALICE)	20	Agricultural and/or farm workers
10	Low-income migrants	21	Gas-heated homes
11	Low income	22	Single parents

*Used in proposed geographic vulnerability scoring

Developed by PacifiCorp with Equity Advisory Group input, intended to be priorities specific to our service area

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Vulnerable Population and Settlement Vulnerability Factors Considerations

Consideration	Pacific Power approach:
VP 6 - People with medical equipment at home: **Issue** – lack of published datasets	Population can be measured by VP 4 – Hearing impairment, VP 5 - Disability, SVF 2 – Cardiovascular disease, SVF 3 – Low birth weight, SVF 11 – Access to health care
VP 9 - ALICE Status: **Issue** – incomplete state-wide data; 239 census tracts out of 1,458	Population can be measured by VP 11 – Low income
VP 10 - Low-income migrant	Excluded to avoid double counting as VP 10 – Low-income migrant can be measured by VP 11 – Low Income and VP 12 - Immigrant
VP 17 - People experiencing homelessness: **Issue** – unavailable datasets at the census tract level	Excluded given limited data availability
VP 19 - Different land statuses: **Issue** – trust and fee land status data not documented consistently across all Washington counties	Yakima County Assessors office data available and will update methodology to include by next workshop

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Settlement Vulnerability Factors			
1	Disability	14	Linguistic isolation
2	Cardiovascular disease	15	Race/Ethnicity
3	Low birth weight	16	Transportation expense
4	Higher rates of hospitalization	17	Unemployment
5	Home care	18	Poverty
6	Arrearage/Disconnections	19	Deep poverty
7	Estimated energy burden	20	Renter status
8	Housing burden	21	Seniors with fixed income
9	Access to digital/internet resources	22	Housing quality
10	Access to food	23	Areas identified as "high need" or "underserved"
11	Access to health care	24	Areas with average energy burden ≥6% with annual income <200% FPL
12	Educational attainment level	25	Qualified Census Tracts (QCT)
13	Historical redline influence	26	Communities in Economic Distress (EDC)

*Used in proposed geographic vulnerability scoring

PacifiCorp asked to consider each in these workshops, with "reasonable alternatives or additions"
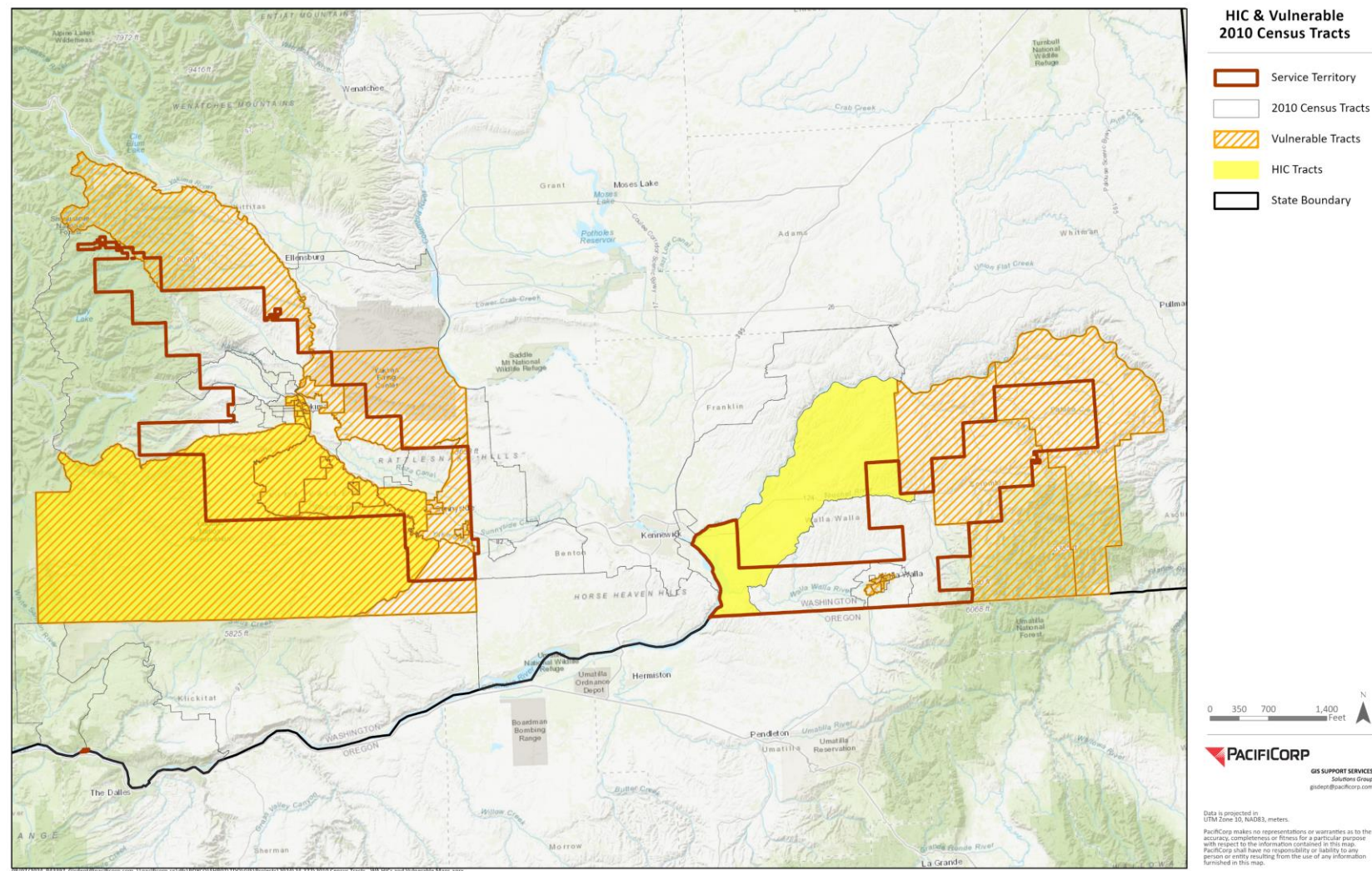
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Consideration	Pacific Power approach:
SVF 1 – Disability	Population is measured by VP 4 - People who have a hearing impairment and VP 5 - Disability
SVF 5 - Home care: **Issue** – Unclear population to measure. Home care can be persons in hospice, live-in or partial care at own home, persons needing professional or familial care, those in retirement homes or nursing homes. Counts of Long-Term Care facilities by census tract are available, but this excludes persons living in own home or with family and is not a measure of population size	Similar population can be measured using VP 2 – Older adults, VP 4 – Hearing impairment, VP 5 – Disabilities, VP 15 – Multi-gen household, VP 2 – Cardiovascular disease, VP 3 – Low birth weight, VP 4 – Higher rates of hospitalization, SVF 11 – Access to health care
SVF 8 – Housing Burden	Excluded SVF 8 – Housing burden to avoid double-counting as it is a component of SVF 22 – Housing quality
SVF 12 – Educational attainment level	Population is measured by VP 1 - Households with high school diploma or lower educational attainment
SVF 13 – Historical redline influence: **Issue** – Available datasets only contains data for Seattle, Tacoma, and Spokane	Update methodology to include once dataset becomes available
SVF 23 – Areas identified as "highest need" or "underserved": **Issue** – The Biennial Conservation Plan uses CEIP Vulnerable Population methodology to identify areas as "highest need" or are underserved	Biennial Conservation Plan (BCP) relies on CEIP processes to determine underserved/highest need. Using BCP as a SVF criterion is circular and inappropriate
SVF 24 - Areas with average energy burden ≥ 6% with annual income <200% FPL	Vulnerability already measured by VP 8 – Energy Burden and VP 11 – Low income

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Vulnerable Geographies – Results

| Counties in Service Territory	HIC Census Tracts	VP Census Tracts	HIC or VP Census Tracts	Total CTs in Service Territory
Yakima	19	26	26	45
Walla Walla	1	6	7	12
Garfield	0	1	1	1
Kittitas	0	1	1	1
Columbia	0	1	1	1
Benton	0	0	0	1
Total	**20**	**35**	**36**	**61**

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- Of the 61 census tracts in Pacific Power's Washington Service Area, 35 received a VP Score of 9 or 10

    - 19 of 20 HICs in Pacific Power's service territory received a VP Score of 9 or 10

    - QCT and EDC flags promoted 7 tracts to a VP Score of 10

   - All census tracts with Tribal Lands received a VP Score of 10

HIC & Vulnerable 2010 Census Tracts

Legend:
- Service Territory
- 2010 Census Tracts
- Vulnerable Tracts
- HIC Tracts
- State Boundary

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Vulnerability in Service Area

Population	Washington Department of Health HIC Methodology	Proposed Geographic Vulnerable Population Methodology
Not Vulnerable	83,224	58,634
Vulnerable	31,193	55,783
Total Residential	114,417	114,417

Customers in HICs

- 27.3% — Customers in HICs
- 72.7% — Customers not in HIC

Vulnerable Customers

- 48.8% — Total Vulnerable
- 51.2% — Total Not Vulnerable
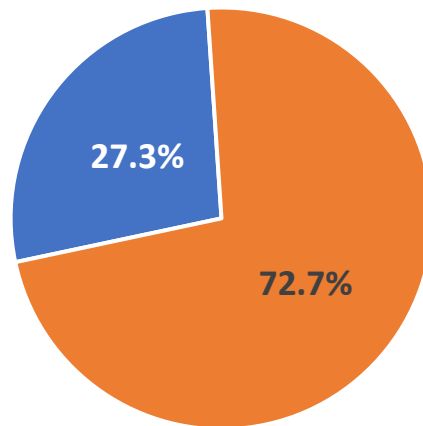
■ Customers in HICs ■ Customers not in HIC
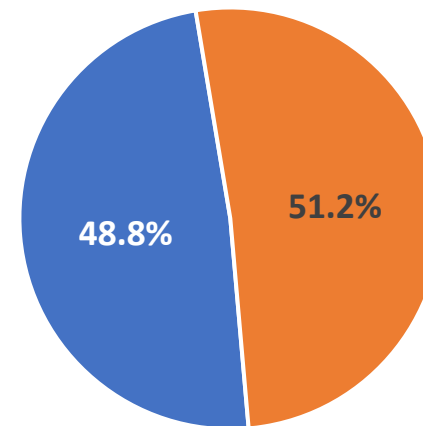
■ Total Vulnerable ■ Total Not Vulnerable

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Discussion

1. Do the vulnerability factors considered in the proposed geographic analysis reflect the sensitive factors that need to be accounted for?

2. Do you believe the expanded vulnerable area reflects locations that are disadvantaged?

3. Do you have other feedback you would like to provide?

Appendix

Proposed VP Data Sources

#	Vulnerable Population	Metric	Source
1	Adults with low educational attainment	Educational attainment level under high school diploma	ACS
2	Older adults	≥ 65 years old	ACS
3	Young children	< 5 years old	ACS
4	Hearing impairment	Hearing disability	ACS
5	Disabilities	Mental or physical disability	ACS
6	People with medical equipment at home	Unable to locate geographic data specifically for people with medical equipment at home	Not available. Represented by VP 4, VP 5, SVF 2, SVF 3, SVF 11
7	Diverse supplier business owners	Count of Minority or Women Owned Enterprises	WA OWMBE
8	Energy burdened	Energy expenditures > 6% income	U.S. DOE
9	ALICE status (employed & within income criteria)	Incomplete data source for Washington	Not available. Represented by VP 11

Proposed VP Data Sources – Continued

#	Vulnerable Population	Metric	Source
10	Low-income migrant	Unable to locate geographic data	Not available. Represented by VP 11 and VP 12
11	Low income	Percent at or below 200% FPL	ACS
12	Immigrants	% population foreign born	ACS
13	Non-English at home	Non-English language spoken at home	ACS
14	Renters	% housing units renter-occupied	ACS
15	Multi-gen household	Grandparents living with own grandchildren	ACS
16	Multifamily household	Non-relatives in household	ACS
17	People experiencing homelessness	Unable to locate geographic data	Not available
18	Rural	Rural-Urban Commuting Area (RUCA) Codes by GEOID	U.S. Dept. of Agriculture

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Proposed VP Data Sources – Continued

#	Vulnerable Population	Metric	Source
19	Different land statuses	Tribal customers located on fee or trust land	Not available
20	Agricultural or farm workers	Workers in agriculture, forestry, fishing and hunting, and mining	ACS
21	Gas-heated homes	Occupied housing unites with utility gas heating fuel	ACS
22	Single parents	Householder with no spouse/partner with own children	ACS

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Proposed SVF Data Sources

#	Settlement Vulnerability Factors	Metric	Source
1	Disability	Hearing disability and disability overall	Duplicative. Represented by VP 4 and VP 5
2	Cardiovascular disease	Cardiovascular disease mortality	WA DOH EHD
3	Low birth weight	Low Birth Weight (<2,500 grams)	WA DOH EHD
4	Higher rates of hospitalization	Hospital discharges	WA DOH CHARS
5	Home care	Interested party input needed	Represented by VP 2, VP 4, VP 5, VP 15, VP 2, VP 3, VP 4, SVF 11
6	Arrearage/Disconnections	Disconnections/arrearages per capita	PacifiCorp/ACS
7	Estimated energy burden	Energy Burden	U.S. DOE LEAD Tool. Tracked as VP 8 – Energy Burdened
8	Housing burden	NA	Represented by SVF 22
9	Access to digital/internet resources	% households with broadband Internet subscription	ACS

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Proposed SVF Data Sources – Continued

#	Settlement Vulnerability Factors	Metric	Source
10	Access to food	> 0.5 urban/10 miles rural to nearest supermarket	USDA FARA
11	Access to health care	% households with health insurance	ACS
12	Educational attainment level	Educational attainment level under high school diploma	ACS. Tracked as VP 1
13	Historical redline influence	NA	Not available
14	Linguistic isolation	Non-English language spoken at home	ACS. Tracked as VP 13
15	Race/Ethnicity	% population non-white and % population Hispanic ethnicity	ACS
16	Transportation expense	Transportation burden	DOT ETC Explorer
17	Unemployment	% population unemployed	ACS
18	Poverty	≤ 200% FPL	ACS. Tracked as VP 11

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Proposed SVF Data Sources – Continued

#	Settlement Vulnerability Factors	Metric	Source
19	Deep poverty	≤ 50% FPL	ACS
20	Renter status	% housing units renter-occupied	ACS. Tracked as VP 14 - Renters
21	Seniors with fixed income	% households with social security	ACS
22	Housing quality	% households with one or more of 4 serious housing unit problems	HUD CHAS. Incorporates SVF 8 – Housing Burden
23	Areas identified as "high need" or "underserved" in the BCP	NA	Circular
24	Areas with average energy burden ≥ 6% with annual income <200% FPL	NA	Represented by VP 8 and VP 11
25	Qualified Census Tracts (QCT)	Census tracts with 50% of households with incomes below 60% AMGI or poverty rate ≥ 25% (Binary; 0 or 1)	HUD
26	Communities in economic distress (EDC)	Census tracts flagged as distressed (Binary, 0 or 1)	U.S. Treasury CDFIF

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