Grid Resilience Formula Grants to States and Indian Tribes

Data Sources for Formula Grant:

- **Q:** What data sources did DOE use to develop the formula for this grant program under section 40101(d)?

  IIJA Section 40101(d)(3) requires DOE to distribute funds to States (including the District of Columbia and the five U.S. Territories) and federally-recognized Indian Tribes based on five factors. In developing the formula allocation, DOE needed statistical data for States, Territories, and Tribes to be considered in the factors. DOE used Factor 1 (population) and Factor 2 (area) to develop a base allocation. The following is an overview of the factors and the data sources used for each factor.

  **Factor 1** – The total population of the State or Indian Tribe.

  **Factor 2** – The total area of the State or the land of the Indian Tribe, or the areas in the State or on the land of the Indian Tribe with a low ratio of electricity customers per mileage of power lines.

  **Factor 3** – The probability of disruptive events in the State or on the land of the Indian Tribe during the previous 10 years, as determined based on the number of federally declared disasters or emergencies in the State or on the land of the Indian Tribe, as applicable, including:
  a) Disasters for which Fire Management Assistance Grants are provided under section 420 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5187);
  b) Major disasters declared by the President under section 401 of that Act (42 U.S.C. 5170);
  c) Emergencies declared by the President under section 501 of that Act (42 U.S.C. 5191), and
  d) Any other federally declared disaster or emergency in the State or on the land of the Indian Tribe.

  **Factor 4** – The number and severity, measured by population and economic impacts, of disruptive events experienced by the State or Indian Tribe on or after January 1, 2011.

  **Factor 5** – The total amount, on a per capita basis, of public and private expenditures during the previous 10 years to carry out mitigation efforts to reduce the likelihood and consequences of disruptive events in the State or on the land of the Indian Tribe, with States or Indian Tribes with higher per capita expenditures receiving additional weight or consideration as compared to States or Indian Tribes with lower per capita expenditures.

  **Factor 1 - The total population of the State or Indian Tribe**
Population Data Sources

**States + D.C. + Puerto Rico:** April 2020 Census - [https://www.census.gov/data/tables/2020/dec/2020-apportionment-data.html](https://www.census.gov/data/tables/2020/dec/2020-apportionment-data.html)

**Territories** (except Puerto Rico): 2020 Island Areas Censuses
- American Samoa - [https://www.census.gov/data/tables/2020/dec/2020-american-samoa.html](https://www.census.gov/data/tables/2020/dec/2020-american-samoa.html)
- Guam - [https://www.census.gov/data/tables/2020/dec/2020-guam.html](https://www.census.gov/data/tables/2020/dec/2020-guam.html)
- U.S. Virgin Islands - [https://www.census.gov/data/tables/2020/dec/2020-us-virgin-islands.html](https://www.census.gov/data/tables/2020/dec/2020-us-virgin-islands.html)

**Indian Tribes:** U.S. Census Bureau database, mainly from the American Community Survey (ACS) 2015-2019, 5-Year Estimates, as well as 1-Year Estimates, Decennial Census (DEC) (2010, 2000), and the following sources for specific Tribes, whose populations were not found in the Census Bureau's database, unless otherwise noted:
- California Valley Miwok Tribe - [https://www.aaanativearts.com/california-valley-miwok-tribe-index#:~:text=There%20were%20only%2012%20persons%2C%20the%20present%20time%20(2013)](https://www.aaanativearts.com/california-valley-miwok-tribe-index#:~:text=There%20were%20only%2012%20persons%2C%20the%20present%20time%20(2013))
- Tejon Indian Tribe - [https://www.tejonindiantribe.com/who-we-are-today/](https://www.tejonindiantribe.com/who-we-are-today/)
- Potter Valley Tribe, California - [http://pottervalleytribe.com/about/](http://pottervalleytribe.com/about/)
- Knik Tribe - [https://kniktribe.org/about-us/](https://kniktribe.org/about-us/)
- Cherokee Nation - [https://cherokee.org/](https://cherokee.org/)
Census Bureau’s population data on Cherokee OTSA is suspected to include non-Tribal members, while ACS and DEC values are challenging to distinguish, so DOE used population estimates from the Cherokee Nation’s website.

Factor 2 - Total Area of the State or Land Area of the Indian Tribe

Area Data Sources


**Indian Tribes:** Census Bureau’s TIGERweb Nation-Based Data Files – [https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_nation_based_files.html](https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_nation_based_files.html), including Alaska Native Village Statistical Areas, Federal American Indian Reservations, Off-Reservation Trust Lands, Tribal Designated Statistical Areas, and Oklahoma Statistical Areas. For most Indian Tribes, DOE combined reservation and offreservation trust lands to calculate land area. Otherwise, DOE estimated area from statistical areas, primarily in Oklahoma, Alaska, and other “tribal designated” areas. Tribal area for Indian Tribes not found in Census’ TIGERweb datafiles is taken from the following sources:¹

- Shawnee Tribe - [https://www.legendsofamerica.com/shawnee-indians/](https://www.legendsofamerica.com/shawnee-indians/)
- United Keetoowah Band of Cherokee Indians in Oklahoma - [https://www.ukbnsn.gov/about-us](https://www.ukbnsn.gov/about-us)
- Tejon Indian Tribe - [https://www.angelfire.com/id/newpubs/yokut44.html](https://www.angelfire.com/id/newpubs/yokut44.html)
- Curyung Tribal Council - [https://tigerweb.geo.census.gov/tigerwebmain/Files/bas22/tigerweb_bas22_anvsa_us.html](https://tigerweb.geo.census.gov/tigerwebmain/Files/bas22/tigerweb_bas22_anvsa_us.html)
- Thlopthlocco Tribal Town - [https://tttown.org/about-us.html#:~:text=In%201941%2C%20the%20Secretary%20of%20the%20Interior%20place,d,Oklahoma%2C%20consisting%20of%20trust%20and%20fee%20simple%20lands.](https://tttown.org/about-us.html#:~:text=In%201941%2C%20the%20Secretary%20of%20the%20Interior%20place,d,Oklahoma%2C%20consisting%20of%20trust%20and%20fee%20simple%20lands.)

¹ In some cases, Indian Tribes were found to be landless. In cases where data on Tribal land was not found, or Tribes were found to have lands occupied seasonally, DOE assigned these Tribes a minimum amount to assure they met the base amount eligibility criteria under Factor 2.
• Paiute-Shoshone Tribe of the Fallon Reservation and Colony, Nevada – NREL’s Tribal Energy Atlas
• Kialegee Tribal Town - https://www.kialegetribaltown.net/history.html
• Nansemond Indian Nation - https://descendantsofthegreatdismal.com/2017/08/15/the-history-of-the-nansemond-indian-tribal-association/
• Alabama-Quassarte Tribal Town - http://alabama-quassarte.org/about-us/
• Central Council of the Tlingit & Haida Indian Tribes - http://www.ccthita.org/about/history/index.html
• Umkumiut Native Village - https://data.nativemi.org/tribal-directory/Details/umkumiut-native-village-198210
• King Island Native Community - https://www.alaskan-natives.com/627/king-island-native-community/
• San Juan Southern Paiute Tribe of Arizona - https://www.sanjuanpaiute-nsn.gov/about
• Native Village of Afognak - https://www.alaskan-natives.com/159/afognak-native-village/
• Paiute Indian Tribe of Utah – NREL’s Tribal Energy Atlas
• Delaware Nation, Oklahoma - https://www.delawarenation-nsn.gov/about-us/
• Native Village of Unga - https://www.apiai.org/tribes/unga/#:~:text=Unga%20is%20located%20in%20Alaska%20and%20then%20as%20%E2%80%9C
• Scotts Valley Band of Pomo Indians of California - https://www.scottsvalley-nsn.gov/heritage/history
• Kaguyak Village - https://alaskahistoricalsociety.org/remembering-kaguyak/
• Pauloff Harbor Village - http://www.unimak.us/pauloff_harbor.shtml
• Native Village of Kanatak - https://explorenorth.com/library/communities/alaska/bl-Kanatak.htm#:~:text=The%20community%20is%20located%20in%20the%20Kvichak%20Recording,Census%20of%201890%2C%20having%20population%20of%2026.

Factor 3 – Probability of Disruptive Events

Methodology Discussion

DOE calculated the “probability of disruptive events” by taking a relative share of each entity’s historical disaster declaration. Section 40101 states that the factor should reflect “the probability of disruptive events in the State or on the land of the Indian Tribe during the previous 10 years.”

DOE applied a share of county-level disaster incidents to the Tribes residing in the corresponding counties due to the small number of Indian Tribes that have publicly declared disasters, as it is often the practice of Tribes to defer to State declarations. Even though many
Indian Tribes do not declare disasters, they are likely impacted by disasters in counties where FEMA has declared a disaster and provided public assistance.

Disaster Declaration Data Sources

*States + D.C. + Territories + 58 Indian Tribes:* FEMA’s Disaster Information on Disaster Declarations - [https://www.fema.gov/disaster/declarations](https://www.fema.gov/disaster/declarations) (includes declared disasters for only 58 of the 574 Indian Tribes).

*Remaining Indian Tribes:* FEMA’s National Risk Index Tribal-County relationships dataset - [https://hazards.fema.gov/nri/data-resources](https://hazards.fema.gov/nri/data-resources) and FEMA’s Public Assistance Funding Project Details - [https://www.fema.gov/about/openfema/data-sets](https://www.fema.gov/about/openfema/data-sets)

- DOE utilized these datasets to identify disasters that may have impacted Indian Tribe(s) residing in the corresponding counties.

Factors 4 and 5 – Impact of Disruptive Events and Mitigation Expenditures

DOE used the FEMA National Risk Index (NRI) as a proxy for Factors 4 and 5 due to limited data availability on population and economic impacts from disruptive events, as well as on public and private mitigation expenditures specific to all entities.

Risk Index Data Sources

*States + D.C., Territories:* FEMA’s National Risk Index Tract-level details for States - [https://hazards.fema.gov/nri/data-resources](https://hazards.fema.gov/nri/data-resources)

*Indian Tribes:* FEMA’s National Risk Index Tribal-Tract relationships - [https://hazards.fema.gov/nri/data-resources](https://hazards.fema.gov/nri/data-resources)