PACHAMAMA ALLIANCE Drawdown Solutions by Sector

Land Use

Tropical Forests
Temperate Forests
Peatlands
Afforestation
Bamboo
Forest Protection
Indigenous Peoples' Land
Management
Perennial Biomass
Coastal Wetlands

Energy

Wind Turbines (Onshore) Solar Farms Rooftop Solar Geothermal Nuclear Wind Turbines (Offshore) **Concentrated Solar** Wave and Tidal Methane Digesters (Large) Biomass Solar Water In-Stream Hydro Cogeneration Methane Digesters (Small) Waste-to-Energy Micro Wind Energy Storage (Distributed) **Energy Storage (Utilities) Grid Flexibility** Microgrids

Food

Reduced Food Waste Plant-Rich Diet Silvopasture Regenerative Agriculture **Tropical Staple Trees Conservation Agriculture** Tree Intercropping **Managed Grazing** Clean Cookstoves Farmland Restoration **Improved Rice** Cultivation Multistrata Agroforestry System of Rice Intensification Composting **Nutrient Management Farmland Irrigation** Biochar

Transport

Electric Vehicles

Ships
Mass Transit
Trucks
Airplanes
Cars
Telepresence
High-speed Rail
Electric Bikes
Trains
Ridesharing

Materials

Refrigerant Management
Alternative Cement
Water Saving - Home
Bioplastic
Household Recycling
Industrial Recycling
Recycled Paper

Women and Girls

Educating Girls
Family Planning
Women Smallholders

Building and Cities

District Heating
Insulation
LED Lighting (Household)
Heat Pumps
LED Lighting (Commercial)
Building Automation
Walkable Cities
Smart Thermostats
Landfill Methane
Bike Infrastructure
Smart Glass
Water Distribution
Green Roofs
Net Zero Buildings
Retrofitting

Summary of Drawdown Solutions By Overall Rank

This table provides the detailed results of the Plausible Scenario, which models the growth solutions on the Drawdown list based on a reasonable, but vigorous rate from 2020-2050.

1.	Refrigerant	Management

- 2. Wind Turbines (Onshore)
- 3. Reduced Food Waste
- 4. Plant-Rich Diet
- 5. Tropical Forests
- 6. Educating Girls
- 7. Family Planning
- 8. Solar Farms
- 9. Silvopasture
- 10. Rooftop Solar
- 11. Regenerative Agriculture
- 12. Temperate Forests
- 13. Peatlands
- 14. Tropical Staple Trees
- 15. Afforestation
- 16. Conservation Agriculture
- 17. Tree Intercropping
- 18. Geothermal
- 19. Managed Grazing
- 20. Nuclear
- 21. Clean Cookstoves
- 22. Wind Turbines (Offshore)
- 23. Farmland Restoration
- 24. Improved Rice Cultivation
- 25. Concentrated Solar
- 26. Electric Vehicles
- 27. District Heating
- 28. Multistrata Agroforestry
- 29. Wave and Tidal
- 30. Methane Digesters (Large)
- 31. Insulation
- 32. Ships
- 33. LED Lighting (Household)
- 34. Biomass
- 35. Bamboo
- 36. Alternative Cement
- 37. Mass Transit

- 38. Forest Protection
- 39. Indigenous Peoples' Land Management
- 40. Trucks
- 41. Solar Water
- 42. Heat Pumps
- 43. Airplanes
- 44. LED Lighting (Commercial)
- 45. Building Automation
- 46. Water Saving Home
- 47. Bioplastic
- 48. In-Stream Hydro
- 49. Cars
- 50. Cogeneration
- 51. Perennial Biomass
- 52. Coastal Wetland
- 53. System of Rice Intensification
- 54. Walkable Cities
- 55. Household Recycling
- 56. Industrial Recycling
- 57. Smart Thermostats
- 58. Landfill Methane
- 59. Bike Infrastructure
- 60. Composting
- 61. Smart Glass
- 62. Women Smallholders
- 63. Telepresence
- 64. Methane Digesters (Small)
- 65. Nutrient Management
- 66. High-speed Rail
- 67. Farmland Irrigation
- 68. Waste-to-Energy
- 69. Electric Bikes
- 70. Recycled Paper
- 71. Water Distribution
- 72. Biochar

- 73. Green Roofs
- 74. Trains
- 75. Ridesharing
- 76. Micro Wind
- 77a. Energy Storage (Distributed)
- 77b. Energy Storage (Utilities)
- 77c. Grid Flexibility
- 78. Microgrids
- 79. Net Zero Buildings
- 80. Retrofitting

Coming Attractions

- 1. Repopulating the Mammoth Steppe
- 2. Pasture Cropping
- 3. Enhanced Weathering of Minerals
- 4. Marine Permaculture
- 5. Intensive Silvopasture
- 6. Artificial Leaf
- 7. Autonomous Vehicles
- 8. Solid-State Wave Energy
- 9. Living Buildings
- 10. Direct Air Capture
- 11. Hydrogen-Boron Fusion
- 12. Smart Highways
- 13. Hyperloop
- 14. Microbial Farming
- 15. Industrial Hemp
- 16. Perennial Crops
- 17. A Cow Walks onto a Beach
- 18. Ocean Farming
- 19. Smart Grids
- 20. Building with Wood