CLAIMS

What is claimed is:

1. An array of solar photovoltaic modules for generating electricity, comprising:

a plurality of solar photovoltaic modules disposed in spaced-part relation in at least two spaced-apart rows, the solar photovoltaic modules mounted on respective supports spaced from a surface to define a gap therebetween,

the adjacent solar photovoltaic modules in a respective row spaced a first distance apart,

the adjacent row of solar photovoltaic modules spaced a second distance apart from the first row,

the gap having a third distance between the surface and the respective solar photovoltaic modules; and

at least one connector attaching respective adjacent solar photovoltaic modules in the respective row,

wherein the connector comprises either:

(a) a U-shaped member having a base that abuts a side edge of the solar photovoltaic module and a pair of spaced-apart plates attached in overlying relation to a portion of the solar photovoltaic module and with a flange extending laterally from the base and defining an opening therein; and

a fastener for securing overlapping flanges of adjacent solar photovoltaic module;

or (b) a pair of spaced-apart plates extending laterally from a first side of the solar photovoltaic module, the pair of plates defining a receiver therebetween;

a tongue extending laterally from an opposing side of the solar photovoltaic module, the tongue aligned with the plates for being received in a receiver of an adjacent solar photovoltaic module; and

a fastener for securing the plates of a first photovoltaic module and the tongue of the adjacent solar photovoltaic module together.

2. The array as recited in claim 1, wherein the solar photovoltaic modules are disposed with a solar sensitive face of the solar photovoltaic module generally from about horizontal to about 20 degrees relative to the surface.

3. The array as recited in claim 1, wherein said support further comprising:

a plurality of spaced-apart rails; and

a plurality of clamps, and a respective clamp for attaching to a respective rail and for gripping a portion of the solar photovoltaic module to secure to the respective rail.

4. The array as recited in claim 1, wherein the first distance is about 0.25 inch to about 80 inches and wherein the second distance is about 0.25 inch to about 80 inches, and wherein the third distance is about 1 inch to about 48 inches.

5. The array as recited in claim 1, wherein the first distance is about 1 inch, the second distance is about 1 inch, and the third distance is about 9 inches.

6. The array as recited in claim 1, further comprising a second array of solar photovoltaic modules according to claim 1 disposed with a respective opposing row of the adjacent first and second arrays of solar photovoltaic modules spaced a fourth distance apart for a worker passage therebetween.

7. The array as recited in claim 6, wherein the fourth distance is between about 1 inch to about 160 inches for access to servicing the respective array.

8. The array as recited in claim 6, wherein the fourth distance is between about 4 feet and 10 feet, for accommodating a service vehicle in the worker passage.

9. The array as recited in claim 1, further comprising:

a second array of solar photovoltaic modules according to claim 1 disposed with a respective opposing row of the adjacent first and second arrays of solar photovoltaic modules spaced a fourth distance apart for a worker passage therebetween; and

a third array of solar photovoltaic modules according to claim 1 disposed with a respective opposing row of the adjacent second and third arrays spaced a fifth distance apart for a vehicle passage therebetween.

10. The array as recited in claim 9, wherein the fourth distance is between about 12 inches and 48 inches and the fifth distance is about 4 feet and 10 feet.

11. The array as recited in claim 1, wherein the support for the solar photovoltaic module comprises:

at least one elongated rail that connects to at least one of the solar photovoltaic modules; and

an anti-creep strip coupled to a bottom surface of the rail, which anti-creep strip has a plurality of projections depending downwardly for engaging tufts of a tufted geosynthetic overlying a ground surface.

12. An interconnected assembly of a first array of a plurality of solar photovoltaic modules and a second array of a plurality of solar photovoltaic modules for generating electricity, each said first array and second array comprising:

(a) a first solar photovoltaic module mounted on a surface;

(b) a second solar photovoltaic module mounted on the surface laterally adjacent a first side of the first solar photovoltaic module and spaced a first distance therefrom with at least one connector connecting the first and second solar photovoltaic modules together; and

(c) a third solar photovoltaic module mounted on the surface adjacent a second side of the first solar photovoltaic module and spaced a second distance therefrom with at least one connector connecting the first and third solar photovoltaic modules together,

whereby the respective solar photovoltaic modules disposed at a third distance from the surface and being interconnected define the array that resists wind uplift while generating electricity; and

said second array disposed such that the third solar photovoltaic module of the first array is spaced a fourth distance from the opposing first solar photovoltaic module of the second array for a worker passage between the first and second arrays.

13. The interconnected assembly as recited in claim 12, further comprising a third array of solar photovoltaic modules according to (a) – (c) of claim 12 disposed such that the third solar photovoltaic module of the second array is spaced a fifth distance from the first solar photovoltaic module of the opposing third array, the fifth distance greater than the second distance for a vehicle passage between the second and third arrays.

14. The interconnected assembly as recited in claim 12, wherein the photovoltaic modules are disposed with a solar sensitive face of the solar photovoltaic module generally from about horizontal to about 20 degrees relative to the surface.

15. The interconnected assembly as recited in claim 12, further comprising a plurality of supports for positioning the solar photovoltaic modules relative to the surface, each support comprising:

an anti-creep strip attached to an elongate rail and having a plurality of projections extending in a first direction therefrom for engaging contact with a plurality of spaced-apart tufts of a tufted geosynthetic cover overlying the surface,

the respective solar photovoltaic module attached to at least one of the elongate rails, for disposing the solar photovoltaic module at the third distance from the surface.

16. A method of arranging first array of a plurality of solar photovoltaic modules and a second array of a plurality of solar photovoltaic modules for generating electricity, comprising the steps of:

disposing each respective first array and second array by

(a) positioning a first solar photovoltaic module on a surface;

(b) disposing a second solar photovoltaic module laterally adjacent a first side of the first solar photovoltaic module and spaced a first distance therefrom with at least one connector connecting the first and second solar photovoltaic modules together;

(c) disposing a third solar photovoltaic module adjacent a second side of the first solar photovoltaic module and spaced a second distance therefrom with at least one connector connecting the first and third solar photovoltaic modules together;

the respective solar photovoltaic modules disposed at a third distance from the surface generally from about horizontal to about 20 degrees relative to the surface and being interconnected defining an array that resists wind uplift while generating electricity; and

said second array disposed such that the third solar photovoltaic module of the first array is spaced a fourth distance from the opposing first solar photovoltaic module of the second array for a worker passage between the first and second arrays.

17. The method as recited in claim 16, further comprising the step of arranging a third array of solar photovoltaic modules according to steps (a) – (c) of claim 16, said third array disposed such that the third solar photovoltaic module of the second array is spaced a fifth distance from the first solar photovoltaic module of the opposing third array, the fifth distance greater than the second distance for a vehicle passage between the second and third arrays.

18. The method as recited in claim 16, further comprising the steps of:

placing projections extending from an anti-creep strip into engaging contact with a plurality of spaced-apart tufts of a tufted geosynthetic cover overlying the surface, the anti-creep strip attached to a respective one of a plurality of elongated rails; and

attaching the respective solar photovoltaic module to at least one of the elongate rails, for disposing the solar photovoltaic module at the third distance from the surface.

19. An assembly of solar photovoltaic modules for generating electricity, comprising:

a first array of solar photovoltaic modules, a second array of solar photovoltaic modules, and a third array of solar photovoltaic modules, each respective first, second, and third array comprising:

a plurality of solar photovoltaic modules disposed in spaced-part relation in at least two spaced-apart rows, the solar photovoltaic modules mounted on respective supports spaced from a surface to define a gap therebetween,

the adjacent solar photovoltaic modules in a respective row spaced a first distance apart,

the adjacent row of solar photovoltaic modules spaced a second distance apart from the first row,

the gap having a third distance between the surface and the respective solar photovoltaic modules; and

at least one connector attaching respective adjacent solar photovoltaic modules together;

said second array of solar photovoltaic modules disposed with a respective opposing row of the adjacent first and second arrays of solar photovoltaic modules spaced a fourth distance apart for a worker passage therebetween; and

said third array of solar photovoltaic modules disposed with a respective opposing row of the adjacent second and third arrays spaced a fifth distance apart for a vehicle passage therebetween.

20. The assembly of solar photovoltaic modules as recited in claim 19, wherein the solar photovoltaic modules are disposed with a solar sensitive face of the solar photovoltaic module generally from about horizontal to about 20 degrees relative to the surface.

21. The assembly of solar photovoltaic modules as recited in claim 19, wherein said support further comprising a plurality of spaced-apart rails; and

a plurality of clamps, and a respective clamp for attaching to a respective rail and for gripping a portion of the solar photovoltaic module to secure to the respective rail.

22. The assembly of solar photovoltaic modules as recited in claim 19, wherein the connector comprises either:

(a) a U-shaped member having a base that abuts a side edge of the solar photovoltaic module and a pair of spaced-apart plates attached in overlying relation to a portion of the solar photovoltaic module and with a flange extending laterally from the base and defining an opening therein; and

a fastener for securing overlapping flanges of adjacent solar photovoltaic modules; or

(b) a pair of spaced-apart plates extending laterally from a first side of the solar photovoltaic module, the pair of plates defining a receiver therebetween;

a tongue extending laterally from an opposing side of the solar photovoltaic module, the tongue aligned with the plates for being received in a receiver of an adjacent solar photovoltaic module; and

a fastener for securing the plates of a first photovoltaic module and the tongue of the adjacent solar photovoltaic module together.

23. The assembly of solar photovoltaic modules as recited in claim 19, wherein the first distance is about 0.25 inch to about 80 inches and wherein the second distance is about 0.25 inch to about 80 inches, and wherein the third distance is about 1 inch to about 48 inches.

24. The assembly of solar photovoltaic modules as recited in claim 19, wherein the support for the solar photovoltaic module comprises:

at least one elongated rail that connects to at least one of the solar photovoltaic modules; and

an anti-creep strip coupled to a bottom surface of the rail, which anti-creep strip has a plurality of projections depending downwardly for engaging tufts of a tufted geosynthetic overlying a ground surface.