Claims

What is claimed is:

1. A turbine component, comprising:

a turbine blade configured to be incorporated into a rotor of a turbine, the turbine blade comprising:

a distal end; and

a proximal end closer to an axis of rotation of the rotor than the distal end when the turbine blade is incorporated into the rotor;

wherein the turbine blade has a longitudinal dimension extending from the proximal end to the distal end;

wherein the turbine blade is configured such that, when incorporated into the rotor, fluid flow along the longitudinal dimension induces rotation of the rotor; and

wherein at least 35% of the mass and/or volume of the turbine blade is within 25% of a distance from the proximal end to the distal end of the turbine blade.

2. The turbine component of claim 1, wherein the turbine blade has a thickness dimension, and wherein the turbine blade has at least one cross-section, taken along a plane parallel to the thickness dimension and the longitudinal dimension, that is in the shape of a foil.

3. The turbine component of claim 1, wherein the turbine blade has a thickness dimension and a lateral dimension perpendicular to the thickness dimension and the longitudinal dimension, and wherein the turbine blade has at least one cross-section, taken along a plane parallel to the thickness dimension and the lateral dimension, that is in the shape of a foil.

4. The turbine component of claim 1, further comprising the rotor, wherein the turbine blade is incorporated into the rotor, wherein the rotor comprises a hub, and wherein the hub is hollow.

5. The turbine component of claim 1, further comprising the rotor, wherein the turbine blade is incorporated into the rotor, wherein the rotor comprises a hub having an exterior surface, and wherein less than or equal to 90% of a volume bound by the exterior surface of the hub is occupied by solid material.

6. The turbine component of claim 1, wherein the turbine blade is configured to undergo autorotation in at least one fluid.

7. The turbine component of claim 1, wherein the turbine blade has a thickness dimension and a lateral dimension perpendicular to the thickness dimension and the longitudinal dimension, and wherein at least 50% of cross-sections of the turbine blade within 10% of a distance from the proximal end to the distal end of the turbine blade, taken along a plane parallel to the thickness dimension and the lateral dimension of the turbine blade, have a positive camber.