


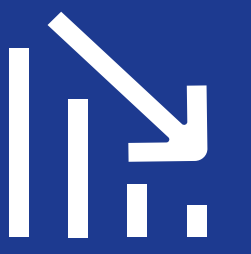




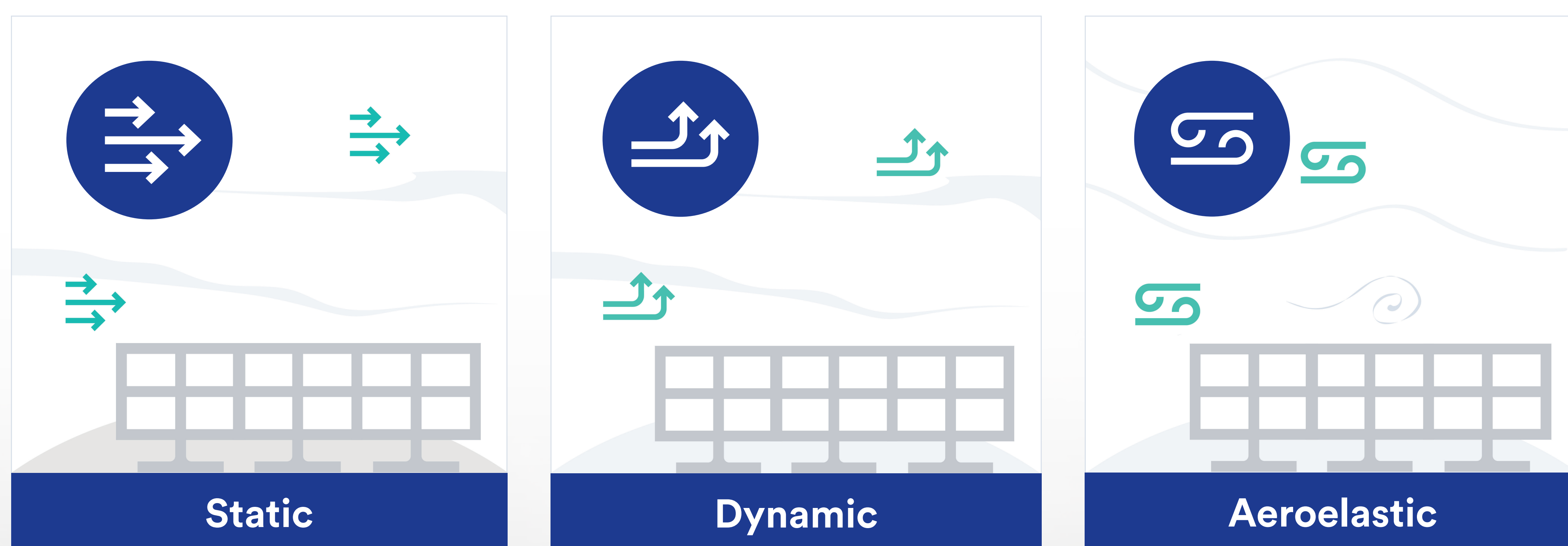
Designing wind resilient solar trackers

Harnessing the power of wind tunnel testing to advance tracker designs

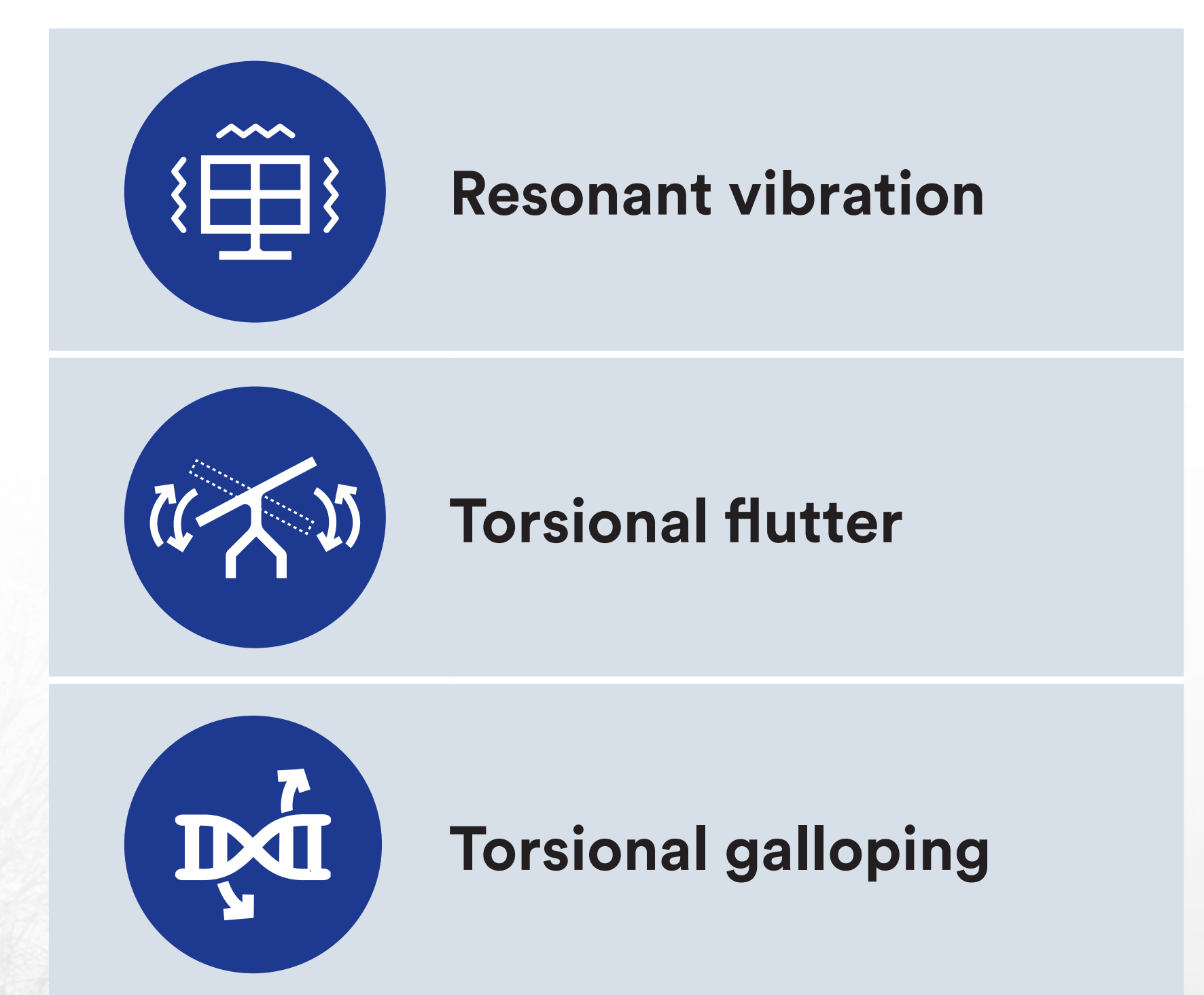
Understanding wind challenges and the impact of wind effects on solar trackers

<p>Safety hazards: </p> <p>Strong winds can loosen hardware and cause structural components to be blown away, posing a hazard to surrounding structures and people. In addition, there could be environmental hazards from damaged solar panels or components.</p>	<p>Increased remedial costs: </p> <p>Excessive wind forces can cause bending, buckling, or even collapse of the racking structure. Damage to solar panels and electronics are also a risk. Repairs are expensive and significantly add to your overall operation and maintenance costs.</p>	<p>Increased downtime: </p> <p>Damaged trackers can render entire sections of the plant inoperable, resulting in production and revenue losses.</p>	<p>Decreased returns: </p> <p>Damage to the structure, solar panels, and electronics require significant investment to get the site operating again. Less energy yield equals lower IRR—and potential failure to meet financial targets.</p>
--	---	---	--

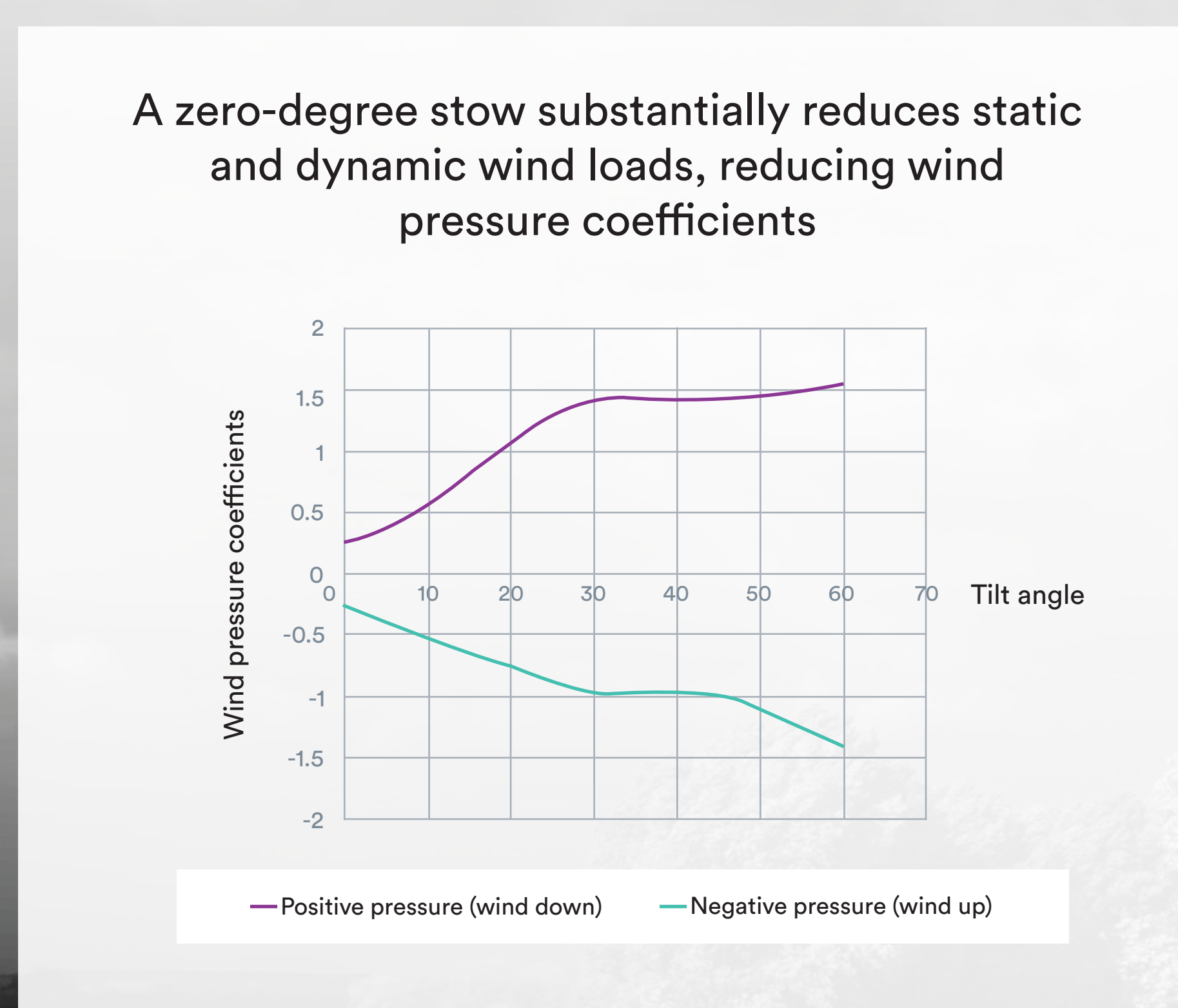
Types of wind effects



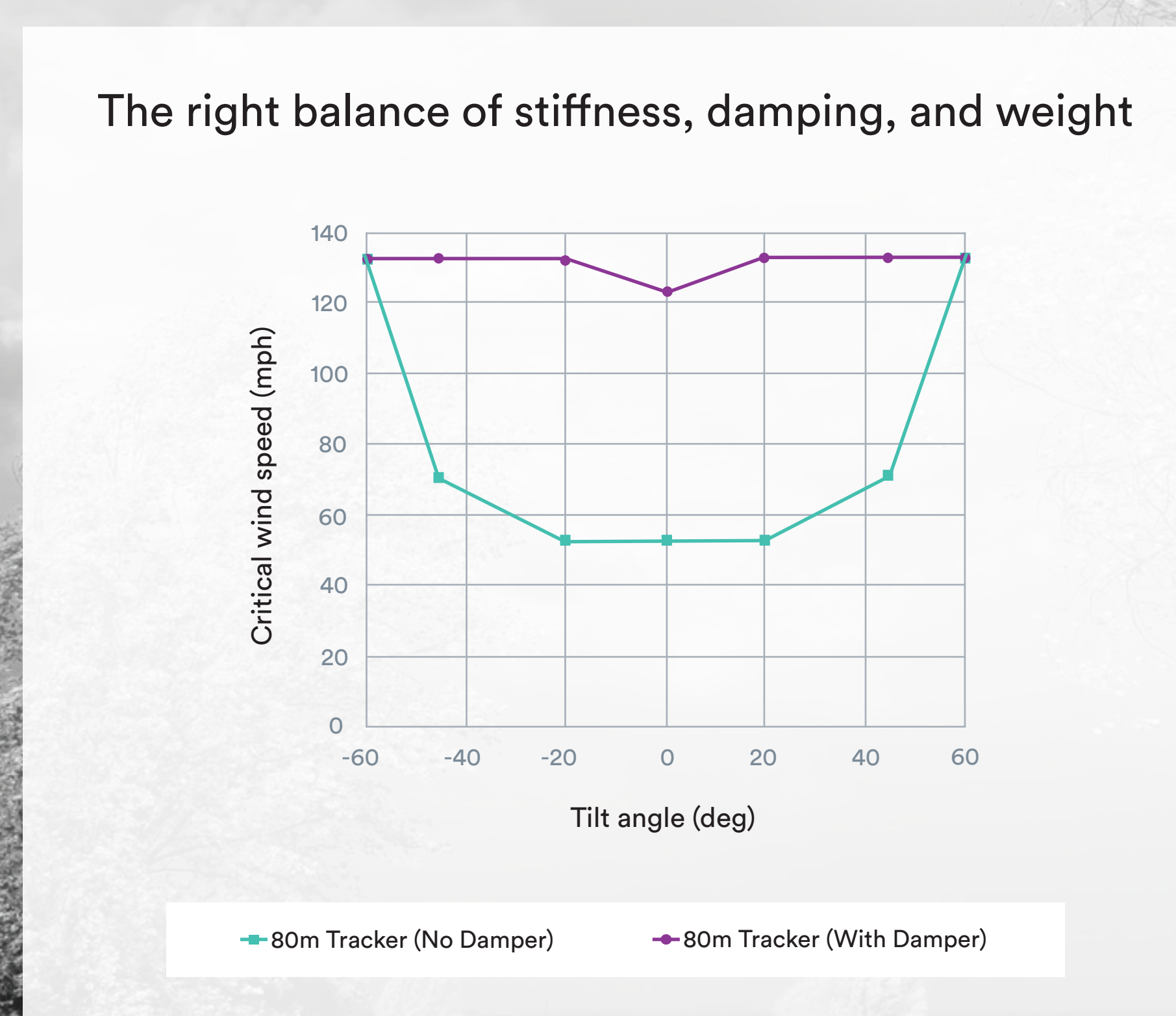
Types of aeroelastic effects



How to reduce wind loads






Achieving aerodynamic stability



The result

A zero-degree stow with the right amount of stiffness, damping, and weight results in

-  **Reduced static & dynamic wind loads**
-  **Fewer foundations per MW**
-  **A stable and reliable tracker**

