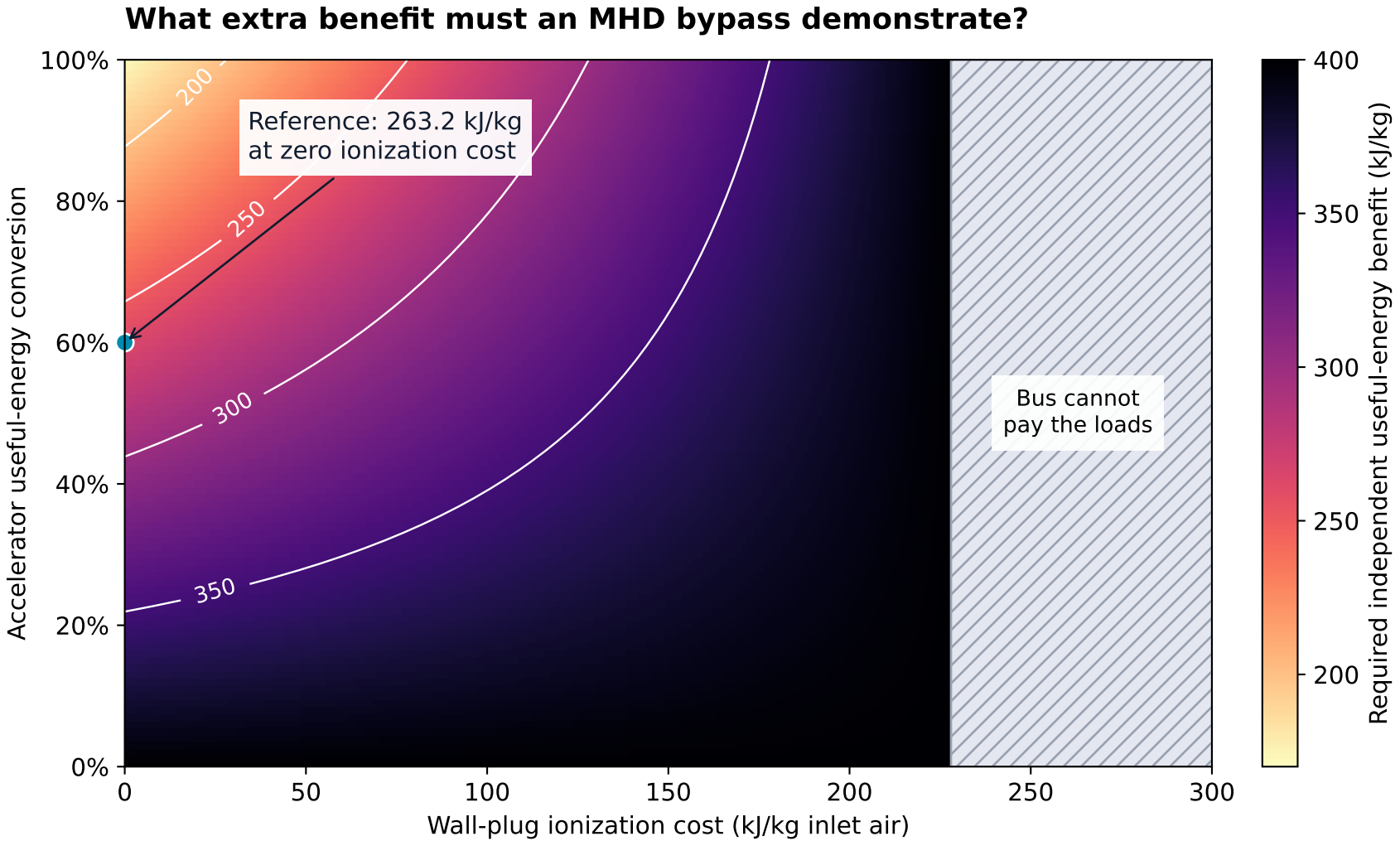

What extra benefit must an MHD bypass demonstrate?
Reference: 263.2 kJ/kg
at zero ionization cost
Bus cannot
pay the loads
200
250
300
350
100%
80%
60%
40%
20%
0%
0
50
100
150
200
250
300
Accelerator useful-energy conversion
Wall-plug ionization cost (kJ/kg inlet air)
400
350
300
250
200
Required independent useful-energy benefit (kJ/kg)
Assumed: extraction 400 kJ/kg; generator 60%; auxiliaries 12 kJ/kg; all remaining bus power returned.
Conditional energy accounting. No measured cycle benefit or net-thrust prediction.