The Current Power Trend

Source: Intel Corp.

Improving Power/Performance

\[ P = \alpha C V_{dd}^2 f + V_{dd} I_{st} + V_{dd} I_{leak} \]

- Consider constant die size and decreasing core area each generation = more cores/chip
  - Effect of lowering voltage and frequency → power reduction
  - Increasing cores/chip → performance increase

Better power performance!