

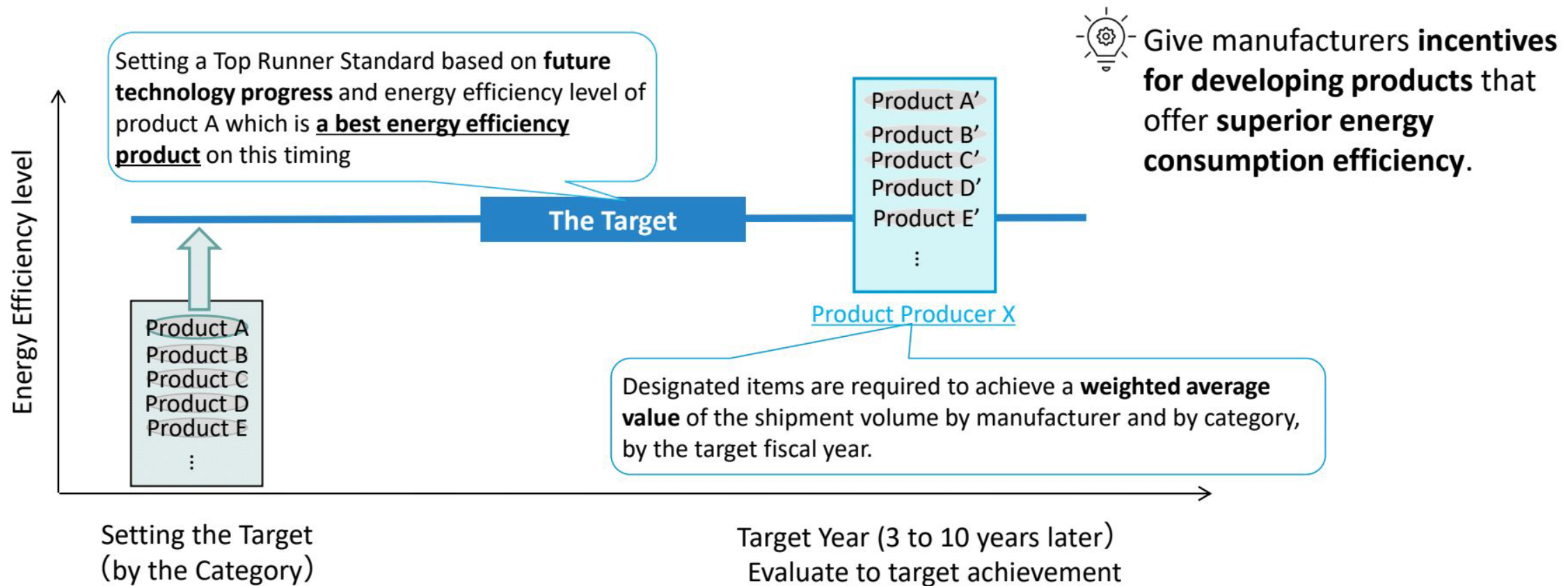
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Top Runner Approach for home appliances and equipment in Japan

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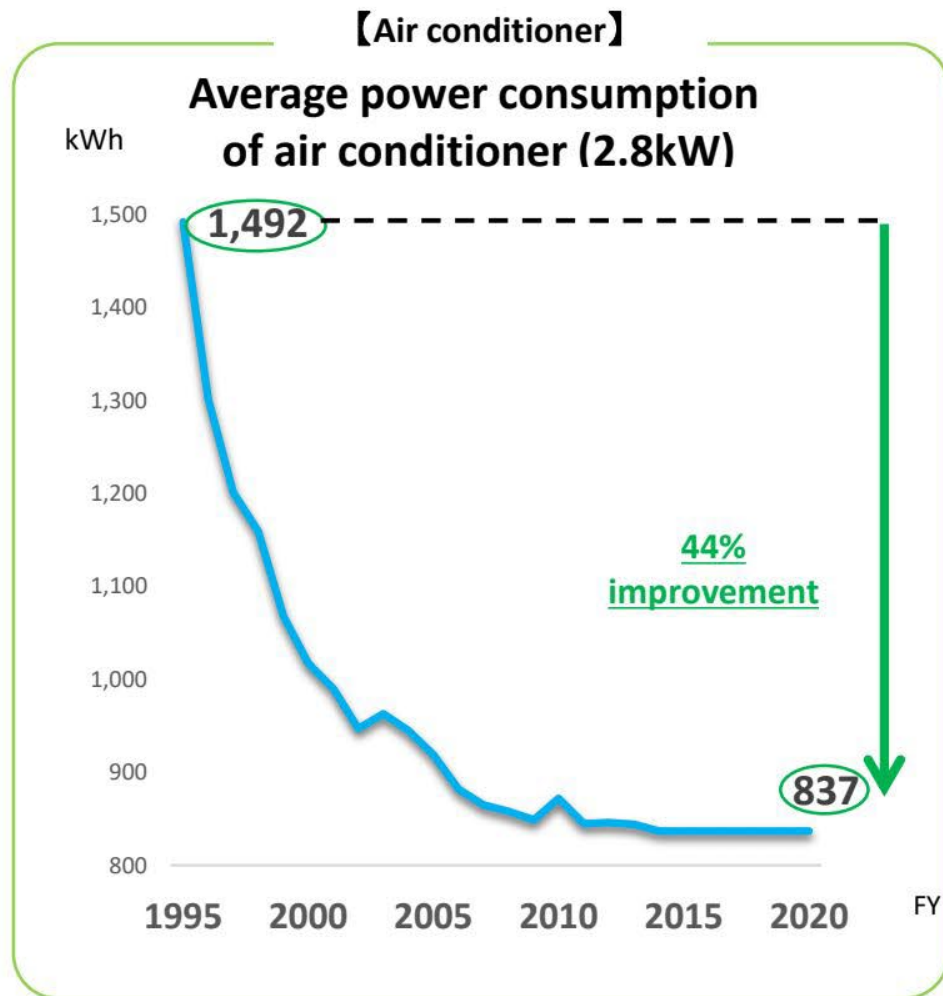
Outline of Top Runner Approach

- In 1998, Government of Japan decided to introduced energy efficiency standard by **Top Runner Approach** for home appliances and Vehicle on the revised Energy conservation law.
- Now, this energy efficiency standard are expanding to **32 products** include building materials such as insulation, window which are designated to energy consumption equipment/appliance by the law.
- If the product producer doesn't meet the goal and needs to improve energy efficiency, the government can take action through **recommendations, announcements, orders, and penalties. (up to million JPY).**



The effect of Top runner program in Japan

- Due to the efforts by manufacturers and others, each product category attained **efficiency improvement that exceeds initial expectations**.



	Energy efficiency improvement(result)	Energy efficiency improvements (initial expectation)
Passenger vehicles	48.8% (1995→2010)	22.8%
Air conditioners, Non-ducted/wall mounted, 4kW or less	16.3% (2005→2010)	22.4%
Refrigerators	43.0% (2005→2010)	21.0%
Electric rice cookers	16.7% (2003→2008)	11.1%
TV Sets	60.6% (2008→2012)	37.0%
Copying machines	72.5% (1997→2006)	30.9%
Gas cooking appliances	25.8% (2002→2008)	20.3%
Vending machines	48.8% (2005→2012)	33.9%
Routers	40.9% (2006→2010)	16.3%

Source : IEA, Tracking Clean Energy Progress, <https://www.iea.org/reports/tracking-clean-energy-progress-2023>

Agency for Natural Resource and Energy(2015), Top runner program, <https://www.asiaeec-col.eccj.or.jp/wpdata/wp-content/uploads/toprunner2015.pdf>