



# Why An ENERGY STAR Specification for Digital TV Adapters (DTAs)

*For more information:*

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# Overview



- DTA landscape
- Benefits of energy efficiency
- How efficiency benefits DTAs
- EPA approach for DTAs

# DTA Landscape



- U.S. shifting from analog broadcasts to all digital on February 17, 2009
  - Consumers relying on over-the-air (OTA) signals will need to either purchase a DTA or buy a digital TV to continue watching OTA TV
- Approximately 33 million DTAs will be needed in the US following the analog cut-off\*
- Congress signed Bill granting \$40 subsidy per DTA
  - NTIA granted authority to develop and implement the rebate program
- EPA, states, and others, including large retailer, interested in having energy efficiency element added to rebate requirements

\*CEA estimates approximately 12% of the total 285 million televisions in the US are used to view over-the-air television programming

# How Efficiency Benefits DTAs



- DTAs expected, partly, to be sold to/needed by disadvantaged consumers
  - E.g., elderly, disabled, lower-income
- DTA cost at retail estimated to be \$50; after \$40 rebate, cost will be \$10
- Projected lifetime energy costs per inefficient DTA projected to be over \$40, or over four times the \$10 cost
  - Would be policy mistake to provide \$40 rebate and have it wiped out by higher electricity costs
- Efficient DTAs would **save consumers over two-thirds** of the projected lifetime energy costs
  - Including auto-power down requirement after extended period of user inactivity would ensure DTAs actually turned off when TVs not in use

# Projected DTA Energy Consumption & Potential Savings



- Typical DTAs today consume about 17 watts in On Mode and 8 watts in Standby Passive Mode\*
- Over 3 billion kWh of energy would be used to power DTAs annually
- Per box savings using 8 watts in On mode/1 watt in Standby mode and 4 hour auto-power down is over 66% (levels being considered by various policy-makers for their programs)
  - Annual energy cost per DTA would be \$2.51 (down from \$8.52)
  - Annual nationwide energy cost for DTAs would be \$83 million (down from \$281 million)
  - Annual energy consumption per DTA would be 28 kWh (down from 95 kWh)
  - Annual nationwide energy consumption for DTAs would be 921 million kWh
  - Annual carbon savings would be equal to removing 300,578 cars from the road

# EPA Approach for DTAs



## **Purpose:**

Create an incentive for energy efficiency in next generation products.

## **Approach:**

Acknowledge that this product is different.  
Anticipate working closely with manufacturers to identify opportunities for efficiency. Work to create market demand for more efficient products.

# ENERGY STAR's DTA Timeline

