AT&T is a signatory to the Voluntary Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes ("VA"). As a signatory, AT&T committed to procure 90% of its new set-top boxes per the ENERGY STAR® Version 3.0 standard through 2016, a more stringent "Tier 2" standard since 2017, and an even tougher "Tier 3" standard beginning in 2020 (2018 Annual Report). We also agreed to provide Typical Energy Consumption (TEC) for set-top box models that are available to customers. The information for those devices is provided below. More information about AT&T's sustainability program is available here.

AT&T DVR STB Models, Functionality and Energy Consumption

Description	Model	Functionality	Energy Consumption		
			On (W)	Off (W)	TEC (kWh / yr)
DIRECTV	HR24-100	APD, AVP, DVR, HD, MR, MS-C/S	22.50	22.40	196.20
DIRECTV	HR24-200	APD, AVP, DVR, HD, MR, MS-C/S	23.00	21.00	189.30
DIRECTV	HR24-500	APD, AVP, DVR, HD, MR, MS-C/S	24.50	22.60	202.70
DIRECTV	HR34-700	APD, AVP, DVR, HD, MR, MS-C/S	28.50	26.90	239.50
DIRECTV	HR44-200	APD, AVP, DVR, HD, MR, MS-C/S	19.30	18.10	162.00
DIRECTV	HR44-500	APD, AVP, DVR, HD, MR, MS-C/S	19.00	17.90	160.00
DIRECTV	HR44-700	APD, AVP, DVR, HD, MR, MS-C/S	18.50	17.50	156.00
DIRECTV	HR54-200	DVR, MR, MS-C/S	12.20	11.10	100.01
DIRECTV	HR54-500	DVR, MR, MS-C/S	12.66	12.64	110.80
DIRECTV	HR54-700	DVR, HNI, MR, MS-C/S	12.10	11.01	99.30
DIRECTV	HS17-100	DVR, Ultra HD, HNI, MR, MS-C/S, MIMO, AP, XCD	20.2	18.92	169.10
DIRECTV	HS17-500	DVR, Ultra HD, HNI, MR, MS-C/S, MIMO, AP, XCD	19.48	18.34	163.60
Uverse	VIP 2250	DVR, AVP, HD, MS-T/I, MR	17.00	14.50	143.00
Uverse	VIP 2262	DVR, AVP, HD, HNI, MS-T/I, MR	12.06	10.33	99.40
Uverse	VIP 2262v2	DVR, AVP, HD, HNI, MS-T/I, MR	12.06	10.33	99.40
Uverse	VIP 2410	DTR, AVP, HD, MS-T/I, MR	17.30	16.40	148.00
Uverse	IPH 8005	DVR, AVP, HD, MS-T/I, MR	11.10	10.00	87.70
Uverse	IPH 8010	DVR, AVP, HD, MS-T/I, MR	11.10	9.90	85.40
Uverse	IPH 8110	DVR, AVP, HD, MS-T/I, MR	10.90	9.70	91.10
Uverse	ISB 7500	DVR, AVP, HD, MS-T/I, MR	18.20	15.50	145.00

AT&T Non-DVR STB Models, Functionality and Energy Consumption

Description	Model	Functionality	Energy Consumption		
			On (W)	Off (W)	TEC (kWh / yr)
DIRECTV	D12-100		7.90	6.20	62.90
DIRECTV	D12-700		6.30	5.30	51.50
DIRECTV	H24-200	APD, AVP, HD, HNI	14.00	11.30	105.90
DIRECTV	H24-700	APD, AVP, HD, HNI	13.70	11.50	106.50
DIRECTV	H25-100	APD, AVP, HD, HNI	10.32	8.42	78.61
DIRECTV	H25-500	APD, AVP, HD, HNI	12.20	11.00	99.30
DIRECTV	H25-700	APD, AVP, HD, HNI	9.90	9.20	82.10
DIRECTV	H44-100	HN1, MS-C/S	9.79	9.05	81.20
DIRECTV	H44-500	APD, HD, HNI, MS-C/S	10.37	9.37	84.70
Uverse	VIP 1200	AVD, HD, HNI, MS-T/I	10.90	10.50	94.00
Uverse	VIP 2200	AVP, HD, HNI, MS-T/I	11.30	11.20	98.20
Uverse	VIP 2500	AVP, HD, HNI, MS-T/I	11.50	11.40	102.00
Uverse	ISB 7000	AVP, HD, HNI, MS-T/I	11.80	11.90	103.70
Uverse	ISB 7005	AVP, HD, HNI, MS-T/I	11.60	11.40	101.00
Uverse	ISB 7105	AVP, HD, HNI, MS-T/I	11.70	11.70	103.00
AT&T TV	C71KW-400	Ultra HD, TC HEVP, HNI, MIMO	5.86	4.13	45.0

AT&T Client Set-Top Box Models, Functionality and Energy Consumption

Description	Model	Functionality	Energy Consumption		
			On (W)	Off (W)	TEC (kWh / yr)
DIRECTV	C31-700	APD, AVP, HD, HNI	5.90	4.50	43.20
DIRECTV	C41-100	APD, AVP, HD, HNI	5.60	4.20	39.90
DIRECTV	C41-500	APD, AVP, HD, HNI	5.60	4.10	39.00
DIRECTV	C41-700	APD, AVP, HD, HNI	5.30	3.70	36.20
DIRECTV	C41W-100	APD, AVP, HD, HNI, MIMO	7.20	5.57	53.00
DIRECTV	C41W-500	APD, AVP, HD, HNI, MIMO	7.17	5.73	53.90
DIRECTV	C51-100	APD, AVP, HD, HNI	6.40	3.80	39.40
DIRECTV	C51-500	APD, AVP, HD, HNI	5.70	3.70	37.00
DIRECTV	C51-700	APD, AVP, HD, HNI	6.10	4.30	41.80
DIRECTV	C61-100	APD, AVP, HD, HNI	5.40	4.25	40.20
DIRECTV	C61-200	APD, AVP, HD, HNI	5.41	4.23	40.10
DIRECTV	C61-500	APD, AVP, HD, HNI	5.43	4.22	40.10
DIRECTV	C61-700	APD, AVP, HD, HNI	5.28	4.10	39.00
DIRECTV	C61K-700	APD, Ultra HD, TC HEVP, HNI, MIMO	9.50	4.10	49.80
DIRECTV	C61W-400	APD, AVP, HD, HNI, MIMO	6.53	5.03	47.90
DIRECTV	C61W-700	APD, AVP, HD, HNI, MIMO	6.56	5.22	49.20

Set-Top Box Features, Descriptions and Allowances

Feature	Description
AP	Access Point (AP): The capability to provide wireless network IEEE 802.11 (Wi-Fi) connectivity to multiple clients.
APD	Auto Power Down (APD): A STB feature that monitors parameters correlated with user activity or viewing. If the parameters collectively indicate that no user activity or viewing is occurring, the APD feature enables the STB to transition to a lower power mode known as APD Mode.
AVP	Advanced Video Processing (AVP): The capability to decode video signals in accordance with standards H.264/MPEG 4 or SMPTE 421M.
DVR	Digital Video Recorder (DVR): A feature that enables recording and playback of video content from a hard disk drive (HDD) or other integrated non-volatile storage. A DVR often includes features such as: Play, Record, Pause, Fast Forward (FF), and Fast Rewind (FR).
HD	High Definition (HD): The capability to transmit or display video signals with a minimum output resolution of 1280×720 pixels in progressive scan mode at minimum frame rate of 59.94 fps (abbreviated 720p60) or a minimum output resolution of 1920×1080 pixels in interlaced scan mode at 29.97 fps (abbreviated 1080i30).
HNI	Home Network Interface (HNI): the interface with external devices over a local area network (e.g., MoCA, HPNA, IEEE 802.3, IEEE 802.11, HomePlug AV) capable of transmitting video content.
MIMO	Multi-Input Multi-Output WiFi (MIMO WiFi): Functionality that supports more than one Spatial Stream for both send and receive.
MR	Multi-Room (MR): The capability to provide independent live video content to more than two Display Devices and/or Clients in a single-subscriber configuration.
MS	Multi-Stream (MS, MS-T/I, MS-C/S): The capability to receive two independent streams of video content for use with one or more Clients, one or more directly-connected Display Devices, a DVR, or picture-in-picture, etc., in a single-subscriber configuration. Multi-Stream Additional (MS-A) further applies to STBs supporting 3-8 streams and 9-16 streams.
TC HEVP	Thin Client High Efficiency Video Processing (HEVP): Video decoding providing compression efficiency significantly higher than H.264/AVC, for example HEVC (H.265).
Transcoding (XCD)	Transcoding (XCD): Additional capability to translate (e.g., MPEG2 to H.264), transrate (e.g., HD bitrate to Mobile bitrate), transcale (e.g., HD resolution to Mobile resolution), transcrypt (e.g., CAS to DRM), or perform audio format conversions (e.g., AC-3 to AAC) in real-time.
Ultra HD	Ultra High Definition – 4K (UHD-4): The capability to transmit or display video signals with a minimum output resolution of 3840×2160 pixels in progressive scan mode at minimum frame rate of 24 frames per second (“2160p24”).