Federal ruling makes digital TV a certainty

Digital TV is coming to your living room, whether you want it or not.

The Federal Communications Commission voted Thursday to require all new televisions sold in the United States to be able to receive digital broadcasts by July 2007.

The decision doesn't necessarily mean the shows you watch will look or sound different anytime soon — particularly if you receive your TV signal via cable or satellite. But it does mean that the television sets you buy, starting a year or two from now, are probably going to be more expensive.

Thursday's order requires TV manufacturers to build in a digital tuner in half of all sets larger than 36 inches by 2004 and in all sets larger than 13 inches by July 2007. It's part of a big push by Washington to move the nation to digital television by 2006.

Digital TV so far has been caught in a chicken-and-egg conundrum. Few people buy television sets with digital capabilities, because there aren't many shows that take advantage of digital's special powers. And no one wants to spend much money on upgrading facilities to create digital programs because there aren't enough people who own those televisions.

All of Detroit's broadcast stations are broadcasting digital signals, but because so few programs are being created in high-quality, high-definition digital formats, you don't get much more visual bang for your buck.

Less than 1 percent of all television sets sold today have digital tuners, according to the National Association of Broadcasters, which supports the FCC order.

That means some Americans still watch the TV signal their parents or grandparents first saw in the 1940s — a picture made up of 525 thin horizontal lines transmitted by an analog system that works like AM radio.

Digital television replaces that with a more precise burst of bits and bytes that's less prone to interference. However, digital broadcasts aren't necessarily the perfect, high-definition television (HDTV) you might have seen in an electronics store. Digital standards allow TV stations to send programs in several different degrees of quality, and not all digital sets will be able to show programs in high definition.

Why are the feds so interested in getting everyone on digital television? For starters, because there's less interference, the picture is dramatically better than standard signals even when it isn't in high definition.

More information can be broadcast on a digital signal, including wide-screen pictures, Dolby and surround sound audio and numerous other extras.

But perhaps most important, switching the country to digital television frees up the frequencies used for broadcasting traditional television. That's essential to balancing the federal budget, because the auction of those frequencies is expected to bring in billions — and an estimate of that money is included in Washington's long-term fiscal plan.

There are disagreements about how much it will cost to put a digital tuner in everyone's new sets.

The National Association of Broadcasters says that it will cost only $16 per set by 2006. The Consumer Electronics Association, which represents electronics manufacturers and opposes the FCC order, puts the cost at closer to $100 — about half what it costs today.

That difference doesn't amount to much on a big-screen television, but it could double the cost of a 13-inch portable for your basement. Still, in either case, it'll be much less than the price of an external adapter, which you'd have to buy to watch digital broadcast with one of today's analog sets.

All this assumes, of course, that you still watch broadcast television. And there, say folks on both sides of the debate, lies the rub.

Depending on whose estimates you believe, somewhere between 83 and 93 percent of Americans get their television from cable or satellite, not from rabbit ears or an antenna on the roof. And although this week's ruling requires televisions to handle digital broadcasts, it doesn't require cable or satellite companies to follow suit.

"This is not the world it was when broadcast was the only service 30 years ago," said Peter Fannon, vice president of technology policy and regulatory affairs for Matsushita Electric Corp. of America, which manufactures Panasonic electronic products. "Panasonic is concerned there might be a consumer backlash against digital television."

So, you ask, does this mean consumers are being required to pay somewhere between $16 and $100 more to buy televisions equipped with a technology they may not be able to use?

The next step, some experts said, is for the FCC to require that television manufacturers build at least some sets that are compatible with both over-the-air digital broadcasts and with digital cable TV signals. Adding that capability won't add much to the price of a digital set, because digital cable set-top boxes mostly consist of the hardware that would already be built in.

That means you'd be able to get digital cable without a set-top box, just as local analog cable customers today hook their cable-ready televisions to the line. That would not only make life more convenient for digital cable customers, but also might woo people into upgrading their analog connections.

Right now, about half of the nation's cable customers get digital. In Comcast areas, it costs about $10 more a month for digital versus extended basic analog, and adds potentially hundreds of channels and better picture quality. But the number of televisions you can hook up is limited to the number of set-top boxes you have.

Satellite broadcasts are generally already digital, so their customers likely won't be affected by the changeover.

The Consumer Electronics Association has promised to appeal the FCC order, so more changes may be on the way.