

# Do Regulatory Prescribed Projection Lives Meet the FCC's Criteria for Use in the TELRIC Proxy Models?

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## Background

In a cost-based pricing scheme for fixed assets, depreciation is the dominant driver of the prices. It naturally follows that the period of time over which an asset is depreciated is the dominant driver of depreciation, and hence, the primary determinant of the price of fixed assets. Traditionally, for regulated industries the period of time over which a company depreciates a group of asset is referred to as the useful service life. The useful service life represents the average physical life span that the group of assets is in-service. Useful service lives reflect the expected physical mortality of the assets. That is, they account for physical mortality impacts such as wear and tear through usage, deterioration with age, and accidental or chance destruction or removal.

The purpose of depreciation is to match the consumption of an asset (i.e., the ongoing decline in value of the asset) with the recovery of the asset (i.e., depreciation). Often, the value of an asset declines at a pace different from the decline in value attributable to just physical mortality impacts. Factors such as increased competition or less expensive newer technologies can accelerate the decline in value above physical mortality levels. Depreciation which reflects not only physical mortality but also the economic loss in value is called economic depreciation; and similarly, an asset life that reflects the true economic loss in value of an asset is generally called an economic life.

In establishing the rules for determining the prices for Unbundled Network Elements (UNE), generally referred to as Telecommunications Long Run Incremental Cost (TELRIC), the FCC has established that the prices will be cost-based. The FCC further established that depreciation must reflect the true declines in the economic value of the assets. The asset lives used for depreciation in TELRIC, therefore, must be economic lives.

Some have proposed that the asset lives currently prescribed by the FCC for the depreciation of Incumbent Local Exchange Carrier's (ILEC's) embedded assets, called "Prescribed Projection Lives", meet the FCC's criteria for economic lives. Others claim that Prescribed Projection Lives are inappropriate for this usage. The purpose of this paper is to examine the nature and scope of Prescribed Projection Lives relative to the FCC's established criteria for use in TELRIC.

The debate over what constitutes an economic life is not new. Many different types of asset lives are floating around that purport to be economic lives. A very short list includes Financial Life, Projection Life, Depreciation Life, Average Remaining Life, Average Service Life and others. In the proper context, one would have no trouble finding intelligent people who would argue strenuously that their life is the correct economic life. The fact of the matter is that each of these lives, in the proper context, is a valid, but different, form of an economic life. Used out of context, however, each of these lives, as well as any others, may not be valid.

Consider, for example, the asset life that many property tax appraisers use. Property tax appraisers are interested in assessing the average life of embedded assets. That is, they want to know how long a group of assets has lived and how much longer these assets will live going forward. The combined total is an estimate of the average life. Property tax appraisers routinely refer to this life as the economic life. The economic life to a tax appraiser is not necessarily appropriate for use by Financial Annalists. Tax appraisers have defined the criteria necessary to meet their objectives, and any life that meets these criteria is appropriate for their use.

The long-standing debate over what constitutes an economic life is not going to be resolved any time soon. In the context of TELRIC, this debate is irrelevant -- like the tax appraisers, the FCC has defined the criteria for economic lives that can be used in TELRIC. If a life does not meet these criteria, that life is not valid for use in TELRIC.

## **The TELRIC Construct**

The FCC has established criteria that define, in part, how to develop UNE prices. These criteria constitute a construct, referred to as the TELRIC construct in this paper. The TELRIC construct defines a hypothetical network that price calculations must reflect. Because the economic life is the dominant driver of the price for fixed assets, it is imperative that the economic lives used in TELRIC are consistent with the TELRIC construct. Otherwise, consumers will not realize the FCC's objectives for TELRIC.

In its description of the nature and scope of the TELRIC proxy model, the FCC clearly defines the nature and scope of what constitutes an economic life. In evaluating the validity of an asset life for use in TELRIC, one must be careful not to confuse traditional or personal understandings of life terminology with the FCC's intended usage of the term 'economic life'. In summary, the FCC requires UNE pricing to reflect forward-looking costing principles that reflect the least cost; most efficient telecommunications technology and network configuration available to the industry; and that the lives not be physical lives. The remainder of this section examines in more detail the TELRIC construct established by the FCC.

### **Least Cost and Most Efficient Technology**

The FCC requires that the proxy models use only the least cost and most efficient technology available to the industry. This generally requires the use of the latest, most advanced technology currently being deployed or commercially available. All ILECs, for example, are currently deploying SONET multiplexer technology in their Interoffice and Feeder networks. The majority of the ILEC's embedded base, however, consists of older, more costly and less efficient non-SONET technology. While it is 100% probable that some UNEs would use these less efficient technologies, the TELRIC construct requires ILECs to assume that SONET, the most efficient and least costly technology going forward, is used.<sup>1</sup> Thus, the life used in the proxy models must reflect the economic life of the most efficient and least cost technologies (i.e., SONET in the above example).

### **Newly Placed Assets**

The TELRIC proxy model assumes a hypothetical network where the least-cost provider deploys a new network using the most efficient technology and network configuration. It naturally follows that the economic life used in the proxy models must reflect the life of newly placed assets. This construct precludes the use of lives that reflect the economic life of embedded assets.

### **Forward-Looking**

The FCC requires that prices of UNEs reflect a forward-looking assessment of the long-run incremental cost. They state that properly designed depreciation lives must account for expected declines in the value of capital assets. The economic lives used in TELRIC, therefore, must capture the future changes in the economic value of the assets. This requires that the lives reflect not only the historical impacts expected to continue in the future, but also any anticipated future economic impacts.

Future impacts mentioned by the FCC included technological obsolescence, lower prices resulting from increased competition, competitive losses and lower replacement costs of newer technologies. The lives used in the proxy models must reflect these forward-looking influences, as well as any other economic influences. Lives based on historical experience, which do not reflect the economic realities of the future, would not meet the TELRIC construct.

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<sup>1</sup> There are times when the latest most advanced technology is not the 'most efficient' technology available for the specific application at hand. Such applications are generally rare, and the proxy models in use can adequately account for the low probability that these applications enjoy.

### **Not Physical Plant Lives**

The FCC specifically states that the lives used in the proxy models should reflect projected economic lives of investments rather than *physical lives*. *Physical lives*, also called useful service lives, reflect the physical life characteristics of an asset. For example, if an asset was placed in-service and retired 10 years later, its physical life is 10 years. Depending on the circumstances, however, the asset's economic life could be less than 10 years. A reduction in replacement cost is one example of an economic reality that would lessen the value of the asset and, hence, lessen its economic life. Technological obsolescence and competition are additional examples of future impacts that affect the economic life.

Additionally, many assets never achieve their *potential* physical life. New technology, competition and other factors often render assets worthless long before they reach their potential physical life. Replacement of an asset before it reaches its potential physical life, is sometimes called a *premature retirement*. For example, there is no physical reason why electronic personal computers (PC) could not live for twenty years (a 20 year physical life); however, rapid technological change and competition render PC equipment essentially worthless in less than ten years. If, for instance, a corporation replaces a functioning PC with a higher performance PC, after 5 years, some call that a *premature* retirement. Such a replacement is a natural occurrence. The increased advantages of the higher performance PC economically justify the replacement of the older PC, although the older PC could remain functional for many more years. This replacement is *premature* only in the sense that the older PC did not live as long as it was physically capable.

The FCC, in drawing a distinction between economic and physical lives, recognizes that there is a difference, and that physical lives are inappropriate for TELRIC. Thus, the lives used in the proxy models must not be physical lives; rather they must be economic lives that reflect the true changes in economic value.

### **Summary of the TELRIC Construct**

The FCC established rules and guidelines that define and govern the nature and scope of the TELRIC proxy models. These criteria establish a construct that defines the nature and scope of the economic lives that the proxy models must use. This TELRIC construct establishes that the economic lives must meet certain conditions. A summary list of these conditions is as follows:

- ◆ The economic lives must reflect the least-cost and most efficient technology and network configuration available to the industry;
- ◆ The economic lives must reflect newly placed assets;
- ◆ The economic lives must be forward-looking and reflect true changes in economic value;
- ◆ The economic lives must not be physical lives.

For a life to be valid for use in the TELRIC proxy models, it must reasonably satisfy all of these constructs. If the life does not meet these criteria then it can not be used in TELRIC. To do otherwise, would undermine the objectives of the FCC and further jeopardize the validity of the entire TELRIC process. The following section examines the validity of using Prescribed Projection Lives in TELRIC.

## **Regulator Prescribed Projection Lives**

Are regulator Prescribed Projection Lives acceptable for use in TELRIC? To be valid for use in TELRIC, a life must reasonably satisfy all of the constructs established by the FCC. If the life does not meet the FCC's criteria for TELRIC, then it is invalid for use in the proxy models. To do so would undermine the intended objectives, introduce unnecessary risk, discourage competition and possibly constitute a taking by the state. To determine if Prescribed Projection Lives are acceptable, we must simply evaluate the nature and scope of the Prescribed Projection Lives relative to the FCC's TELRIC construct, as outlined in the preceding section. The remainder of this section does just that.

### **Most Efficient and Economic Technology Available**

The FCC establishes Prescribed Projection Lives for a specific prescribed category of plant. The FCC's Uniform System of Accounts (USOA) – Part 32 establishes the prescribed categories and defines the type of equipment contained in them. Generally, these categories are broad in scope and do not separately account for the latest, least cost and most efficient technologies. The latest technologies are included in the same categories with the older more costly technologies. The Prescribed Projection Life represents an investment-weighted average life of all of the technologies within the category. Prescribed Projection Lives, therefore, do not reflect the life of the most efficient and least costly technologies available as required by the FCC for use in TELRIC.

Prescribed Projection Lives are more representative of the older, less efficient technologies than they are of the newer, more efficient technologies. This is due to the fact the relative investment in the prescribed categories is greater for the older technologies: the newer technologies have not been around as long and their per unit cost are typically lower.

### **Are Prescribed Projection Lives Forward Looking?**

While some have argued that *by definition* Prescribed Projection Lives are forward-looking economic lives, the fact of the matter is that they do not meet the FCC forward-looking construct and are therefore not appropriate for use in TELRIC.

**First**, the argument, that *by definition* Prescribed Projection Lives are economic lives, is irrelevant in considering their appropriateness in TELRIC. Quite simply, if Prescribed Projection Lives meet the TELRIC construct, they can be used, if they do not meet the TELRIC construct, then they can not be used; the traditional interpretation of Prescribed Projection Lives is irrelevant.

Nonetheless, the traditional definition of Prescribed Projection Lives was established over 100 years ago and is not applicable in today's TELRIC environment. Traditionally, in the context of Prescribed Projection Lives, we assumed that the projection life of embedded assets equals the life of new assets, and we further assumed it equals the economic life. These assumptions do not hold true today.

In the stable monopolistic environment of the first half of this century, economic impacts other than physical mortality were small and generally had a negligible impact on the economic life of regulated utility equipment. With only physical mortality impacts, the projection life of newly placed assets, in this era, approximately equaled that of older generations of the same equipment. For some technologies, like poles, these traditional assumptions still hold true. Today, however, the environment has drastically changed for the vast majority of telecommunications infrastructure; and the traditional assumptions are invalid.

In today's environment, the average life of embedded older technologies does not equal the life of the newly placed technologies. Technological obsolescence, for example, shortens the projection life of newly placed older technologies relative to the life of the embedded assets. For example, the life of newly placed copper cable is shorter than the life of copper cable placed 10 years ago. Additionally, rapid technological advancement, for some technologies such as Switching technology, has shortened the projection life of newer technologies relative to the life of older technologies. Digital Switching equipment, for example, has a shorter life than Analog Switching equipment, and Analog Switching equipment had a shorter life than Electromechanical switching. In today's environment, the projection life is changing over time: the projection life of embedded assets is different from the projection life of new assets. The traditional definition of projection lives incorrectly assumes that the life does not change over time.

The future will entail continued rapid technological advancement and obsolescence; government is eliminating the last remaining remnants of the Bell System monopolies. Prescribed Projection Lives are rooted in antiquated traditions and based on the flawed assumption that the physical mortality impacts of the past will be the dominant drivers of the value of the assets in the future. Prescribed Projection Lives do not reflect the realities of today's environment, and are grossly inconsistent with the objectives of TELRIC.

A forward-looking economic life must reflect the realities of the future; we must not rely on flawed traditional interpretations of irrelevant and obsolete assumptions. The argument that *by definition* Prescribed Projection Lives are forward-looking economic lives does not standup and is inconsistent with the FCC's TELRIC construct.

**Second**, we have established in the previous section that Prescribed Projection Lives represent an average of the various generations of technologies that are currently in-service. The TELRIC construct requires that the proxy models include only the latest, most efficient and less costly technology. Just as it is unacceptable to use the cost of embedded, older and less efficient technologies in TELRIC, it is unacceptable to use the lives of embedded, older and less efficient technologies in TELRIC. The FCC specifically establishes Prescribed Projection Lives to recover the cost of all embedded technologies that are in-service. This violates TELRIC's forward-looking construct.

**Third**, the TELRIC construct requires the proxy models to use the most efficient technology commercially available. This is applicable even if the ILEC has not yet deployed this technology. As noted above, the FCC specifically establishes Prescribed Projection Lives for assets in-service. When the ILECs first deployed SONET technology, for example, the FCC did not establish a life for SONET until a couple of years after the fact. The reason the FCC did not establish a life for SONET at that time was that SONET's investment was too small to affect the Prescribed Projection Life of the category. In this case, the Prescribed Projection Life initially ignored the life of the most efficient and least cost technology, SONET. Clearly, Prescribed Projection Lives, which reflect investment-weighted average lives of all embedded technologies, do not reflect the life of technologies not currently deployed.

**Forth**, Prescribed Projection Lives are not forward-looking in that they do not reflect true changes in economic value. Future loss in value, for example, is likely to result from increased competition and less expensive new technology. The process used to determine Prescribed Projection Lives does not accommodate the modeling of such impacts.

The process used to determine Prescribed Projection Lives assumes that ongoing (future) losses in value follow a physical mortality pattern that is 100% compatible with wear and tear through usage, deterioration with age, and accidental or change destruction or removal. The Prescribed Projection Life process assumes that historical retirement levels and physical mortality patterns will continue unchanged into the future. The process ignores, for example, the progressive nature that technological obsolescence has on mortality patterns. The process used to determine Prescribed Projection Lives is, therefore, incompatible with the types of forward-looking changes in economic value cited by the FCC.

It is not possible for the current Prescribed Projection Life process to account for true changes in economic value. Several writings, published in the early 1980's, document this fact; yet, the current process, developed in the first half of this century, remains unchanged today.

W.C. Fitch and F.K. Wolf in their paper, titled *Conceptual Framework for Forecasting the Useful Life of Industrial Property*, Iowa State Regulatory Conference, 1984, recognized the need to enhance the Prescribed Projection Life process and conceptualized on how forward-looking impacts such as technological obsolescence could be modeled to give better life estimates.

K. A. Kateregga, Department of Industrial Engineering, Iowa State University, concluded in his paper *Technological Forecasting Models and Their Applications in Capital Recovery*, that "there is a justifiable need to incorporate technological forecasting in the overall life analysis framework especially in those industries experiencing fast technological changes."

In summary, Prescribed Projection Lives are inconsistent with the FCC's criteria that the lives reflect the true forward-looking changes in economic value. The traditional definition of Prescribed Projection Lives is not applicable in today's environment and inconsistent with the TELRIC definition for economic lives. Prescribed Projection Lives are heavily influenced by the relative investment of older and less efficient

technologies; with little weight given to newly introduced technologies; and no weight given to commercially available technologies that have not yet been deployed. Finally, the Prescribed Projection Life process models physical mortality patterns and is incapable of modeling the true forward-looking changes in economic value. Clearly, Prescribed Projection Lives do not meet the FCC's forward-looking TELRIC construct.

### **Do Prescribed Projection Lives Reflect The Economic Life of Newly Placed Assets**

Prescribed Projection Lives reflect the investment weighted average life of all technologies contained within the prescribed category they represent. These categories, as noted earlier, consist of investment for all technologies currently in-service. This generally includes several older, less efficient, and more costly technologies. Prescribed Projection Lives, clearly, do not reflect the life of just newly placed equipment.

Additionally, for prescribed categories experiencing rapid technological change, the FCC has acknowledged that the Prescribed Projection Life process is insufficient. Under these conditions, the FCC generally accepts, at least in part, the ILEC's assessment of the Average Remaining Life (ARL) for depreciation rate making purposes. As a matter of formality, the Prescribed Projection Life is determined, using a physical mortality survivor curve, as the best-fit life which yields the mutually agreed to ARL. This inverse process of backing into the Prescribed Projection Life is, in essence, the same as developing a projection life for each vintage of investment and calculating an investment-weighted average life for all embedded vintages in the category. This in and of itself is recognition that the life of newly placed assets is different from the Prescribed Projection Life. The following example further documents this fact.

Consider the following example: An ILEC plans to replace an analog switch with a digital switch in exactly three years. The new digital switch is replacing the entire analog switch along with any new additions made to the analog switch. The projection life of the switch and any new additions to this switch is three years. The projection life of additions made one year ago is four years (the one year already realized and the three more years until the switch is replaced). Similarly, the projection life of additions made 17 years ago is 20 years (the 17 years already realized plus the three more years until the switch is replaced). If one were to calculate the projection life for the entire switch, clearly the calculated life would be significantly greater than the three year projection life of newly placed equipment. For a typical ILEC, a projection life of about 12 to 14 years is likely for the entire Analog Switching account. Clearly, a Prescribed Projection Life does not equal the projection life of newly placed plant.

The situation described above for Analog Switching is identical to that of any account experiencing technological change or loss in economic value over and above physical mortality. Such forward-looking impacts lower the life of newly placed technology relative to that of previously placed assets. Analog Switching was chosen for this example because the makeup of a single switch is analogous to an entire account; and the life implications described are equally analogous to other assets including Digital Switching, Circuit Equipment and Copper Cable.

The FCC's Depreciation Study Guide for 1995 states that "The estimation of the future remaining life for existing assets is the foundation of the current depreciation process." It naturally follows the Prescribed Projection Lives also reflect a life for existing assets. Prescribed Projection Lives do not meet the TELRIC construct that economic lives reflect the life of newly placed equipment.

### **Are Prescribed Projection Lives Economic Lives Rather Than Physical Lives**

The FCC's TELRIC construct for economic lives specifically states that economic lives must reflect the true forward-looking changes in economic value and must not be physical lives. Prescribed Projection Lives are heavily based on physical retirement patterns; and therefore do not meet this condition.

**First**, the Prescribed Projection Life process is rooted in physical retirement patterns. The FCC's depreciation review process requires the ILECs to file numerous exhibits specifically designed to capture and quantify past physical retirement levels and patterns. These include, but are not limited to, the Curve Shape Analysis Plot (plots the historical physical retirement pattern in terms of percentage of embedded investment surviving by age of plant); Average Life Indications (plots the projection life necessary to

achieve the historical physical retirements realized in a period, assuming that future retirement patterns will follow the historical physical retirement patterns established by the mortality survivor curve); Summary of Graduation Data (table of statistical data used to select the mortality survivor curve which best fits the historical physical retirement experience); Annual Retirements (table of past retirement levels); and Planned Retirements (table of retirements forecasted for three years). In contrast to these required exhibits, the company may provide exhibits that quantify a technological substitution that is taking place, for instance, but such exhibits are not required. Clearly, past physical retirements are the foundation of Prescribed Projection Lives. The resulting life is more a physical life than a forward-looking economic life as required for TELRIC.

**Second**, The FCC uses “Life Indications”, in part, as a basis for determining Prescribed Projection Lives. Pure statistical analysis of physical retirement history determines Life Indications. Consequently, they naturally give an indication of the average physical life of the embedded assets. The Life Indication is determined as the best-fit projection life that yields the historical physical retirement levels experienced over a period of time (usually the past 5 years). The FCC requires ILECs to develop Life Indications and supporting exhibits as part of their depreciation review process. The use of Life Indications in the determination of Prescribed Projection Lives is further evidence that Prescribed Projection Lives are physical lives and not applicable for use in TELRIC.

**Third**, the process used to determine Prescribed Projection Lives relies heavily on the use of mortality survivor curves. Mortality survivor curves were developed over a hundred years ago; and are based on human mortality experience. The fundamental assumption made in the application of human mortality experience to telecommunications is that for any given age of an asset, the asset will have a fixed probability of surviving the next year, just as human beings do. In terms of human beings, this means that a person 80 years old 10 years ago had the same probability of dying in the subsequent year as a person 80 years old today has. In other words, a fixed probability of mortality is associated with each age; and that probability of mortality remains constant for all time. In terms of telecommunications, mortality survivor curves assume a fixed probability of retirement (retirement rate) for each age of plant; and they further assume that the retirement rate remains constant for all time.

The ILECs and the FCC determine the mortality survivor curve by statistically fitting a curve to the historical retirement experience. This complex process is called a Graduation. The curve-selection process combines historical mortality experience by age of plant then uses a least-squares criteria to select the mortality survivor curve. Mortality survivor curves provide an indication of past physical mortality patterns (physical retirement rates). The application of mortality survivor curves in the development of Prescribed Projection Lives assumes that the physical mortality patterns experienced in the past will continue into the future. Prescribed Projection Lives are, therefore, physical lives reflecting past retirement experience, which makes them inappropriate for use in TELRIC.

Moreover, mortality survivor curves do not do a good job of projecting even the physical characteristics of most telecommunications equipment. For instance, mortality survivor curves completely ignore the fact that technological obsolescence progressively increases the retirement rates for each age group over time. It is a mathematical reality that retirement rates for each age must increase for a group of assets that are being replaced by a newer technology. Mortality survivor curves can not model this situation: they assume that the retirement rates for each age will remain constant. Consider the Analog Switching example given earlier. The year before the digital switch replaces the analog switch; each vintage of plant has a 100% retirement rate (ignoring common equipment). A mortality survivor curve has no mechanism for accounting for this situation; it ignores the fact that the digital switch is replacing the analog switch in one year. A best-fit mortality survivor curve will still result in a Prescribed Projection Life of roughly 12-14 years.

Not only are Prescribed Projection Lives physical lives, their dependence on the flawed assumption that the future decline in economic value will follow human mortality patterns totally ignores the realities of technological obsolescence, deregulation and competition. Prescribed Projection Lives do not meet the FCC’s TELRIC construct that the lives must not be physical lives.



## Summary

The FCC established a criterion that defines and governs the nature and scope of the economic lives used in TELRIC. This criteria establishes that:

- ◆ The economic lives must reflect the least-cost and most efficient technology and network configuration available to the industry;
- ◆ The economic lives must reflect newly placed assets;
- ◆ The economic lives must be forward-looking and reflect true changes in economic value;
- ◆ The economic lives must not be physical lives.

**For a life to be valid for use in TELRIC, it must reasonably satisfy all of these criteria.** If the life does not meet each of these criteria then it must not be used in TELRIC. To do otherwise, would undermine the objectives of the FCC and further jeopardize the validity of the entire TELRIC process. Prescribed Projection Lives satisfy none of these criteria.

**Prescribed Projection Lives do not reflect the life of the most efficient and least costly technologies available to the industry.** A Prescribed Projection Life is an investment-weighted average life of all of the technologies within a prescribed category. The majority of the investment in these categories is for older, less efficient and more costly technologies. Therefore, the Prescribed Projection Lives are more a life of older, less efficient technologies than a life of the newer, more efficient and less costly technologies. Additionally, Prescribed Projections Lives reflect only the life of in-service assets and do not account for new technologies, commercially available, but not deployed.

**Prescribed Projection Lives are inconsistent with the criteria that the lives reflect true forward-looking changes in economic value.** The argument, that *by definition* Prescribed Projection Lives are forward-looking economic lives, is irrelevant in considering their appropriateness in TELRIC. Quite simply, if Prescribed Projection Lives meet the TELRIC construct, they can be used. If they do not meet the TELRIC construct, then they can not be used. The traditional interpretation of Prescribed Projection Lives is irrelevant. Additionally, the TELRIC construct requires that only the latest, most efficient and less costly technology be modeled in TELRIC; including technologies commercially available but not deployed. Prescribed Projection Lives reflect the life of only assets that are currently in-service. Finally, the Prescribed Projection Life process models physical mortality patterns. This process is incapable of modeling the true forward-looking changes in economic value attributable to such factors as increasing competition, technological obsolescence, and lower priced future technologies.

**Prescribed Projection Lives do not reflect the life of newly placed equipment.** Prescribed Projection Lives reflect the physical life of embedded asset. In today's environment of rapid technological change and increasing competition, the life of new equipment is significantly lower than the life of the embedded equipment.

**Prescribed Projection Lives are physical lives.** The process used to determine Prescribed Projection Lives depends heavily on the statistical analysis of physical retirement patterns. This process is specifically designed to reflect physical life characteristics. There is no mechanism in this process to account for other types of declines in economic value. Prescribed Projection Lives are clearly physical lives.

Prescribed Projection Lives do not satisfy any of the criteria established by the FCC for the use of economic lives in TELRIC. To Use Prescribed Projection Lives in TELRIC would undermine the FCC's objectives, introduce unnecessary risk, discourage competition and possibly constitute a taking by the state. Prescribed Projection Lives must not be used in TELRIC.

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