

*Additional Question 1: What are possible definitions of “reliability” that have been used or proposed for use by policy makers? What studies exist regarding the economic and environmental benefits of baseline or "additional" reliability?*

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**Executive summary**

1. Electric reliability is composed of *adequacy* and *security of supply and delivery*. Adequacy refers to having enough, whereas security reflects the ability of the system to withstand disturbances. Both of these drivers of reliability apply to the supply, or generation, of electricity as well as its delivery to customers through transmission and distribution systems
  
2. Electric reliability is critical to our national safety, security, health, and economic prosperity. Reliability is an economic “public good”, with enormous (and immeasurable) societal benefits

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1. **Electric reliability is composed of *adequacy* and *security of supply and distribution*. Adequacy refers to having enough, whereas security reflects the ability of the system to withstand disturbances. Both of these drivers of reliability apply to the supply, or generation, of electricity as well as its delivery to customers through transmission and distribution systems**

Table 1 below summarizes these components and their role in electric reliability.

<b>Components of electric reliability</b>	<b>Supply (generation)</b>	<b>Delivery (transmission and distribution)</b>
<b>Adequacy (having enough)</b>	Is there enough electric generating capacity to meet all customers’ needs at all times?	Is there enough transmission and distribution capacity to deliver the electric supply to customers?
<b>Security (withstanding disturbances)</b>	Is there a sufficient margin of safety in generation capacity to ensure supply even if some plants are down or other disturbance occurs in the generation system?	Can the transmission and distribution systems withstand or recover quickly from disturbances such as storms, accidents, etc.?

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**2. Electric reliability is critical to our national safety, security, health, and economic prosperity. Reliability is an economic “public good”, with enormous (and immeasurable) societal benefits**

The United States benefits from having developed and invested in one of the most reliable electric systems in the world. The benefits of this system are not just personal to those individuals and businesses that use the power and value the reliability of their own electric supply. The benefits are societal – supporting safety, security, health, and economic prosperity.

These societal benefits also make electric reliability a “public good”, under the economic definition of the term. As a public good, reliability provides benefits beyond those measured by individual consumers’ preferences and willingness to pay. An individual cannot be excluded from reaping these benefits even if he or she does not want to pay for it. And, the availability of these benefits to one person does not diminish their availability to another person.

These public good characteristics, and their implications for energy policy and regulation, are discussed in greater detail in Overall Question 1 – Making Good Energy Decisions.