

Table 5.2 Summary of vulnerability and potential magnitude of climate change impacts to Seattle City Light

| Utility Function | Impacts Caused by Climate Change* | Time | Vulnerability | | | Potential Magnitude** of Impact to | | | | | Ref. Pages |
|---|--|------|---------------|-------------|-------------------|------------------------------------|--------|-------------|------------------------------|-------|------------|
| | | | Exposure | Sensitivity | Capacity to Adapt | Financial Cost | Safety | Reliability | Environmental Responsibility | | |
| Coastal properties | 1. Tidal flooding due to higher storm surge and sea level rise | 2030 | ○ | ● | ● | Low | — | — | Low | 18-24 | |
| | | 2050 | ● | ● | ● | Mod | — | — | Low | | |
| | 2. Tidal flooding and salt water corrosion due to higher storm surge and sea level rise | 2030 | ○ | ○ | ● | Low | — | Low | — | 18-24 | |
| | | 2050 | ● | ○ | ● | Low | — | Low | — | | |
| | 4. Reduced transmission capacity due to warmer temperatures | 2030 | ● | ○ | ○ | Low | — | Low | — | 34-39 | |
| | | 2050 | ● | ○ | ○ | Low | — | Low | — | | |
| | 5. More frequent outages and damage to transmission and distribution equipment due to changes in extreme weather** | 2030 | ○ | ● | ● | Low | Low | Low | — | 40-46 | |
| | | 2050 | ○ | ● | ● | Low | Low | Low | — | | |
| | 6. More damage and interruptions of transmission and generation due to wildfire risk | 2030 | ● | ● | ● | High | High | Med | — | 47-53 | |
| 2050 | | ● | ● | ● | High | High | Med | — | | | |
| 7. More damage to transmission lines and access roads due to landslide risk | 2030 | ● | ● | ● | Med | Low | Med | — | 54-58 | | |
| | 2050 | ● | ● | ● | Med | Low | Med | — | | | |
| 9. More damage and reduced access to transmission lines due to more frequent river flooding and erosion | 2030 | ● | ● | ● | Med | — | Low | — | 71-74 | | |
| | 2050 | ● | ● | ● | High | — | Low | — | | | |
| Energy Demand | 3a. Reduced electricity demand for heating in winter due to warmer temperatures | 2030 | ● | ● | ● | Med | — | Low | — | 25-33 | |
| | | 2050 | ● | ● | ● | High | — | Low | — | | |
| | 3b. Increased electricity demand for cooling in summer due to warmer temperatures | 2030 | ○ | ○ | ● | Low | — | Low | — | 25-33 | |
| | | 2050 | ● | ○ | ● | Med | — | Med | — | | |

**The impacts are those caused by climate change in addition to historical conditions; most existing hazards (such as windstorms) will continue.
 *Magnitude refers to the average event or normal condition for the timeframe, not the worst possible year or event that could occur.