WASHINGTON APA'S GAME CHANGING INITIATIVE
REBUILD INFRASTRUCTURE WORKING GROUP

Learn More: Rebuild Infrastructure

BiG ideas

Rebuilding Infrastructure Challenges

Once every four years, America's civil engineers provide a comprehensive assessment of the nation's major infrastructure categories in ASCE's *Report Card for America's Infrastructure.* (http://www.infrastructurereportcard.org/a/#p/overview/executive-summary) Their report card rates our national infrastructure at grade D, with only minor improvements over the past four years. Washington State fares slightly better with an overall grade of C, yet our roads and transit systems are rated at a D+. http://www.infrastructurereportcard.org/washington/washington-overview/)

Infrastructure systems in Washington are the backbone of our society and economy, and are the biggest, most enduring capital assets of any community. Our infrastructure investment decisions in the next decade – totaling billions of dollars across Washington -- will have a tremendous impact on the economic vitality, social equity, public and environmental health, and resilience of our communities.

Yet a growing 'infrastructure deficit', reflected in aging systems, escalating O&M costs, and declining revenues poses an increasingly serious challenge. At the same time, climate change is emerging as a powerful driver for rethinking infrastructure – both our reliance on carbon-based fuels and the vulnerabilities of our critical infrastructure to extreme weather.

Furthermore, the design of our infrastructure systems is changing. As examples, the "smart grid" allows user feedback for energy use, plug-in electric cars provides energy storage for use in the grid, and "green infrastructure" allows stormwater management with minimal use of piped systems. Such technology innovation and economies-of-scale are beginning to disrupt long-standing infrastructure approaches, opening up new strategies with the potential to deliver greater environmental, social, and economic value streams.

Our major universities are centers for research in these areas. One example is the Pacific Northwest Smart Grid Demonstration Project, under an $89 million grant from the U.S. Department of Energy. The goals of this project are to identify opportunities to help save energy, make the power system more reliable and incorporate renewable energy into the power generation system.

Actions to Address Rebuilding Infrastructure

Infrastructure investments are so central to the future well-being of our communities that local government planners are playing a much more active and strategic role in guiding and coordinating these investments to best fit with local plans and aspirations of the community. **Sustainable Infrastructure: A Toolkit for Planners**

offers a handy checklist for assessing proposed infrastructure investments and ten principles that will help planners and their elected leaders to know whether a given project is helping to build the right infrastructure systems, not only for the near-term but for people in 2030 and 2040.

Planners who use **Sustainable Infrastructure: A Toolkit for Planners** can help to assure that our investments in energy, water, transportation and waste management will deliver more value, manage risk better, and cost less than past approaches. At the same time, smarter infrastructure investment can effectively address our most pressing environmental challenges and foster healthy, prosperous, beautiful, resilient, and cohesive communities. Principles in the Toolkit include:

- Build a Better Business Case,
- Choose for a Changing World,
- Encourage Silo-Bridging,
- Build Community Prosperity, and
- Partner With Nature/Enhance the Community.

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