

# Hydropower

Clean Air, Renewable Energy  
The Power of Water

## Top Ten Reasons to Include Hydropower in all Renewable **Energy** Initiatives

### 1 Hydropower is a renewable source of energy.

Hydropower uses the power of flowing water, without wasting or depleting it in the production of energy; therefore, all hydropower projects – small or large, run-of-river or storage – meet the definition of renewable.

### 2 Hydropower supports the development of other renewables.

Hydropower facilities with reservoirs provide a unique operational flexibility that allows them to respond almost immediately to fluctuating demands for electricity. Hydropower's flexibility and storage capacity makes it the best source to support the deployment of wind or solar energy.

### 3 Hydropower contributes to fresh water storage.

Hydropower reservoirs harvest rainfall, thereby supplying fresh water for drinking and irrigation. This fresh water storage protects aquifers from depletion, and reduces our vulnerability to floods and droughts.

### 4 Hydropower helps improve the air we breathe.

Hydropower is a clean source of electricity because it produces very few greenhouse gases, no other air pollutants, and it does not generate any toxic waste by-products.

### 5 Hydropower helps fight climate change.

By offsetting emissions from gas, coal and oil fired power plants, hydropower can contribute to reducing air pollution and to slowing down global warming. Currently, hydropower displaces the consumption of 4.4 million barrels of oil-equivalent each day.

### 6 Hydropower stimulates local and regional development.

Hydropower facilities bring electricity, roads, industry and commerce to communities, developing the economy, improving access to health and education, and enhancing the quality of life.

### 7 Hydropower optimizes the performance of other energy technologies.

Through flexible, reliable and efficient operation, hydropower ensures an effective electricity network, where the performance of thermal plants is optimized and air emissions reduced.

### 8 Hydropower fosters national energy security.

Water from rivers is a domestic resource that is not subject to fluctuations in fuel prices; therefore, hydropower fosters energy independence and security.

### 9 Hydropower means clean, affordable power for today and tomorrow.

With an average life span of 50 to 100 years, hydropower projects are long-term investments that can easily be upgraded to take advantage of the latest technologies. Hydropower is an electricity source with long viability and very low operation and maintenance costs that one generation bestows onto several subsequent ones.

### 10 Hydropower is sustainable development.

Hydropower projects that are developed and operated in an economically viable, environmentally sound and socially responsible manner represent sustainable development at its best; that is to say, "Development that meets the needs of the people today without compromising the ability of future generations to meet their own needs." (*World Commission on Environment and Development, 1987*)

