

# Guide to the Palisades Global Water Index™



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## INDEX DESCRIPTION

The Palisades Global Water Index (“Index”) is a modified equal-dollar weighted index comprised of companies traded on stock exchanges worldwide that are positioned to benefit significantly from the escalating global demand for water and the ecological imperative of sustainable water resource governance. Accordingly, the Index serves as a proxy for measuring the increasing value of water resulting from the impact of temporal and spatial scarcity on the relationship between human health, ecological sustainability and economic growth.

The Index is rebalanced and reconstituted after the close of trading on the next to last business day of each March, June, September and December (“Rebalance Date”). The Index was created by and is a trademark of Palisades Water Index Associates LLC (“Index Provider”).

The Index is calculated by Dow Jones Indexes, the marketing name and a licensed trademark of CME Group Index Services LLC. “Dow Jones Indexes” is a service mark of Dow Jones Trademark Holdings LLC (“Dow Jones”). The Palisades Global Water Index is listed under the ticker “PIIWI.”

The Index divisor was initially calculated to yield a base value of 1,000.00 at the close of trading December 31, 2003. Dow Jones Indexes calculates the level of the Index based on the most recently reported prices of the underlying stocks (as reported by the primary exchange or trading system on which they are listed).

## ELIGIBILITY CRITERIA FOR INDEX COMPONENTS

The Index includes companies that participate in the global water business. Examples of activities include; the provision of potable water, the treatment of water and wastewater for municipal and industrial processes, water infrastructure, services and technologies that directly support the provision of water, agriculture, the sustainable use of water as a resource, etc. Component companies are listed on eligible international stock exchanges.

The universe for inclusion in the Index is drawn from: (1) the proprietary water industry database of the Index Provider derived from ongoing research, and (2) published industrial databases that identify water industry participants.

The investable universe is subject to multiple eligibility factors. To be included in the investable universe of the Index, a component must initially meet the following criteria:

- A minimum total market capitalization of US\$150 million.

- A traded volume greater than 100,000 shares for each of the prior three months.
- A minimum average daily traded value of US\$500,000 for the prior three months.

Inclusion of a company in the Index is based on the nature and degree of participation in the water business and its contribution to the thematic objective of the Index (see Index Description). Eligibility for inclusion at this level results from company-specific analysis (both quantitative and qualitative). The eligibility of a company beyond exposure based strictly on the percentage of water or water-related revenue is determined by the Index Provider. Revenue from water activities may be less prominent in relation to the aggregate but still drive, or have the expectation of driving, incremental financial performance. In addition, the analysis of water or water-related revenue must often reach beyond summarily reported financial segments into the detail of specific water product or service applications and/or the water markets served in order to calculate the proper percentage. Such instances do not necessarily preclude a determination of relevance to the water driven financial performance of a company.

Factors that can lead to a determination as to whether or not a company has a relevant level of water industry exposure consistent with the Index's thematic objective are summarized as follows:

- Percentage of revenue attributable to water or water-related activities (a percentage greater than 50% is presumed relevant).
- Global or regional leadership in one or more key water subsectors.
- Strategic position within the water value chain (existing and future).
- Pro forma water or water-related revenue and/or earnings.
- Prevalence of non-water activities (especially in a multi-business structure).
- Characteristics of the Index sector to which a company can be categorized.

These factors may be considered individually or in combination. The Index Provider strictly limits inclusion where the percentage of water or water-related revenue is below a majority of total revenue. It is nonetheless important to clarify the rationale behind eligibility where water industry specific expertise is required to advance the Index objective in optimizing the thematic exposure.

The number of pure-plays in water is governed by the attributes of the existing industry structure. Many water businesses are components of larger multi-business companies where the exposure is marginalized, embedded within broader reporting industrial segments, or operated as a stand-alone core competency. The important point is that the Index objective embodies a thematic strategy; investing in water as a critical and increasingly scarce economic resource within an ecological context. The current state of the global water business is well suited as a thematic investment.

The water 'industry' lacks definition—it is extremely large, but very diverse and ultra-fragmented. It is this reality, in combination with the ideal of water resource sustainability, that requires domain expertise in making the determinations necessary to attain the greatest long-term potential of the water theme. The composite benchmark remains, however, that at least 80% of the Index weight is comprised of companies that derive 50% or more of their revenue from water and/or water-related activities. The 'rationalization' of the water industry structure, needed to efficiently meet burgeoning global water demands while conforming to the imperatives of sustainability, provides the thematic foundation for the design and methodology of the Index.

## **INDEX DESIGN AND METHODOLOGY**

The Index is calculated using a modified, equal-dollar weighting methodology. The modification is achieved through the integration of functionally defined water industry sectors (segments) into the Index design (see Index Sectors). The grouping of components among water sectors is determined by the Index Provider based on the primacy of a company's water and/or water-related activities.

Each sector is assigned an allocation by the Index Provider that represents a composite weight based on the fundamentals of a particular water sector relative to the other sectors. Examples of fundamental considerations associated with the sector weights include; position within the water resource value chain, regulatory trends, the relative impact of regulations, the dynamics of governing institutional economics, the magnitude of funding gaps, financing mechanisms, the price of water, best available water industry practices, convergent and enabling technologies, population ecology, trends in resource sustainability, ecological ramifications, impact of climate change, and so on.

The sector weights drive the individual component weights within a particular sector. The components of a sector are equally weighted at each Rebalance Date based on a simple arithmetic average of the sector weight. For example, if the Treatment Sector is rebalanced at 20% of the Index total and if there are five components classified in that sector, then each water treatment company is assigned a weight of 4% at the Rebalance Date

The Index Provider may at any time and from time to time change the number of issues comprising the Index sectors by adding or deleting one or more components, or replace one or more companies contained in the Index sectors with one or more substitute companies of its choice, if in the Index Provider's discretion such addition, deletion or substitution is necessary or appropriate to maintain the quality and/or character of the water investment theme to which the Index relates. The Index is expected to function as a diversified portfolio. Sector weights are reviewed each quarter in conjunction with the scheduled quarterly

review of the Index. Changes to the sector weights occur over time as adjustments are made to reflect the differential impact of water market dynamics on the fundamentals relevant to a particular water sector.

## INDEX SECTORS

**Water Utilities:** Water utilities are the ‘regulated’ purveyors of water, directly responsible for getting water supplies to customers (residential, commercial, industrial, etc.) in compliance with all applicable laws and regulations for a particular consumptive use. In the United States they are under the jurisdiction of federal, state and local regulatory bodies and governing institutions and must comply with these regulatory requirements to ensure the safety of drinking water and wastewater and to minimize the environmental impact of wastewater discharges. Foreign water utilities often operate under different regulatory frameworks, such as state-granted concessions. The investor-owned water utilities included in the Underlying Index generally oversee the water, wastewater and/or stormwater facilities for a specifically sanctioned geographic region or are structured as holding companies comprised of geographically diverse operating divisions. In return for substantial capital expenditures to meet the public need, investor-owned water utilities are granted a return on investment generated through rate tariffs related to the cost of service. Accordingly, the rate environment is critical to water utilities and varies dramatically throughout the world.

**Treatment:** Within the water industry, water treatment generally refers to the process of converting raw water to potable water of sufficient quality to comply with applicable regulations, thereby ensuring the protection of human health and safety. Wastewater treatment, though extricably linked to the provision of potable water, is differentiated within the industry through the addition of ecological impacts. That is, wastewater must be treated to protect human health (sanitation) as well as to protect the environment. Within the Underlying Index, the Treatment sector definition is expanded to include the entire value chain of treating water, wastewater, and stormwater. Accordingly, the Treatment sector comprises those activities that in some way contribute to the physical, chemical or biological condition of water, including process water in fluids, generally with the purpose of producing water for a specific consumptive use and/or an ecological imperative. Importantly, consumptive use includes everything from drinking water to ultrapure water used in semiconductor manufacturing and ecological imperatives from ‘fishable/swimmable’ to carrying capacity. Subsectors of Treatment include water and wastewater treatment equipment/systems, chemicals/resins/media, filtration/separation/membranes, disinfection, desalination, membrane bioreactors, point-of-use, etc.

**Analytical:** The Analytical sector includes companies that develop, manufacture or sell instrumentation or analytical products and/or related supplies, provide services, design information systems or develop technologies for the management, analysis, testing, measurement or monitoring of drinking water, wastewater and/or process water. These analytics are applied, directly or indirectly, to achieve either a mandated compliance requirement or a management objective in optimizing the use of water relative to a specific function, whether commercial/industrial, agricultural, or residential. The Analytical sector addresses the critical need for the detection and measurement of a growing number of emerging contaminants at increasingly smaller levels, implementation of sustainability initiatives and the efficient integration of system wide operations. From a water policy perspective, the trend is toward regulations where implementation of compliance requirements is tied to monitoring provisions. The Analytical sector is driven by, among other things, enabling advances and convergent technologies in life sciences, biotechnology, information technology, sensors and advanced electronics. Subsectors of the Analytical sector include instrumentation/sensors, testing/monitoring, metering, laboratories, security, SCADA systems, etc.

**Water Resource Management:** The Resource Management sector embodies a systems-oriented approach to the integration of the principles of resource sustainability with complex water issues. Companies in this sector emphasize the interrelationships between their water business activities and the management of water as a valuable environmental resource and economic good. The management of water as an economic resource reflects the transition of the global water business to the ideal of sustainable water use. Resource Management components in the Underlying Index have a significant presence in the development of comprehensive water and wastewater projects on a global basis or participate in specific water management applications. Subsectors of the Resource Management sector include engineering & technical consulting, privatization, biosolids, irrigation, reuse/recycling, reclamation/remediation, management services, water rights, etc.

**Infrastructure/Distribution:** This sector includes the companies that benefit from the construction, replacement, repair and rehabilitation of water distribution systems, wastewater systems, and stormwater collection systems throughout the world. It encompasses the vast interconnected network of pipelines, mains, storage tanks, lift stations, pumps, and smaller appurtenances of the water grid such as valves, flow meters and service connections. Deterioration of the drinking water distribution system poses significant risks to water supplies, public health, security, the environment and economic development. In addition, international markets for new water infrastructure build-out in emerging economies add significantly to the magnitude of expenditures. The sector also includes the rehabilitation market comprised of technologies and materials utilized to upgrade, maintain and restore pipe networks as a cost-effective alternative to new

construction. Subsectors of the Infrastructure sector include transmission, distribution, pumps/valves/flow control, rehabilitation/repair, 'in-situ' technologies, pipeline systems, storage, stormwater, etc.

**Multi-Business:** The multi-business sector contains those companies that are substantial participants in the water industry yet are diversified into other industries or markets to the extent that the existing contribution of water or water-related activities is unrecognized. Multi-business components within the Underlying Index generally apply a particular platform technology, product-line or service capability across several global markets, including water. The components have business brands or activities that are widely recognized and accepted within the water industry and must offer worldwide leadership in a specific water market or application. Further, the water exposure must represent a dominant factor in the growth prospects for the company. The multi-business sector is representative of the reality in the current structure of several key water markets to which Underlying Index exposure is desirable.

**Emerging:** This sector includes component water companies that enable exposure to specific water industry subsectors but which are classified separately due to non-fundamental factors. These companies fall within the allowable de minimus exception to the liquidity or market capitalization requirements of the Underlying Index. Emerging water components must exhibit the expectation of rapid growth based on the water markets in which they operate. The sector proactively monitors emerging water companies where unique investment opportunities are likely to arise as institutional changes shift the allocation of resources to water management technologies.

## QUARTERLY UPDATES AND MAINTENANCE OF THE INDEX

The Index is reconstituted (through any Index additions or deletions) and rebalanced after the close of trading on the next to last business day of each quarterly Rebalance Date.

In conjunction with the quarterly review, the share weights used in the calculation of the Index are updated based upon newly assigned Sector weights and index component prices as of the close of trading two business days prior to the Rebalance Date. The Index composition and sectors weights are not changed more often than the quarterly Index rebalancing. Following a Rebalance Date, component stocks and relative weights will move according to their respective prices until the next Rebalance Date except in the event of certain types of corporate actions such as splits, reverse splits, stock dividends, or similar events.

In the event of a merger between two components, the share weight of the surviving entity may be adjusted to account for any shares issued in the

acquisition. The Index Provider may substitute components or change the number of issues included in the index, based on changing conditions in the industry or in the event of certain types of corporate actions, including mergers, acquisitions, spin-offs, and reorganizations.

In the event of the payment of dividends other than ordinary cash dividends, spin-offs, rights offerings, re-capitalization, or other corporate actions affecting a component of the Index the Index divisor may be adjusted by the Index calculating agent to ensure that there are no changes to the Index level as a result of non-market forces.

## **DISSEMINATION OF INDEX INFORMATION**

The Index Provider will provide to the calculation agent the constituents of the Index and the sector weights on the sixth to the last business day of each quarterly rebalance month. Dow Jones Indexes (CME Group Index Services LLC) serves as the calculation agent for the Index. The value of the Index will be disseminated every 15 seconds over the Consolidated Tape Association's Network B between the hours of approximately 9:30am and 4:15pm (ET) under the ticker "PIIWI".

### **Approximate Rebalance Schedule**

Third Monday of the Final Month of the Quarter – Index components updated by Palisades Water Index Associates LLC. Components screened for inclusion rules and additions and deletions determined. New Index composition and assigned Sector weights sent to the calculation agent.

Fourth Monday of the Final Month of the Quarter – Results will be sent to Palisades Water Index Associates LLC after the close of trading for final review.

Last Business Day of the Final Month of the Quarter -- New shares and weights are determined. Index review changes will become effective after the close of trading and posted by the index calculating agent (Dow Jones Indexes) at [www.djindexes.com/customindexes/palisades/?go=index-announcements](http://www.djindexes.com/customindexes/palisades/?go=index-announcements). This link is also provided on the Palisades Water Index Associates LLC website at [www.Palisadesx.com](http://www.Palisadesx.com).

### **Rebalance Schedule Example – March 2011**

March 21, 2011 – Index components updated by Palisades Water Index Associates LLC. New Index composition and assigned Sector weights sent to Dow Jones Indexes.

March 28, 2011 – Index composition and weights are determined at the close of trading and disseminated.

March 31, 2011 – Quarterly Index rebalance and reconstitution becomes effective after the close of trading.