



Water and Climate Risk Management: Tools and Approaches

IGF Annual General Meeting – October 2016



Overview – Water/Energy and Climate Change

- ❑ Strategies and current focus
- ❑ Key risks
- ❑ Tools and management approaches
- ❑ Variability – what's happening now
- ❑ Scenario planning and forecasting

Global Water Strategy

“Manage water as a precious resource and work collaboratively to create value and improve lives through sound water stewardship”

Strategic Focus Areas



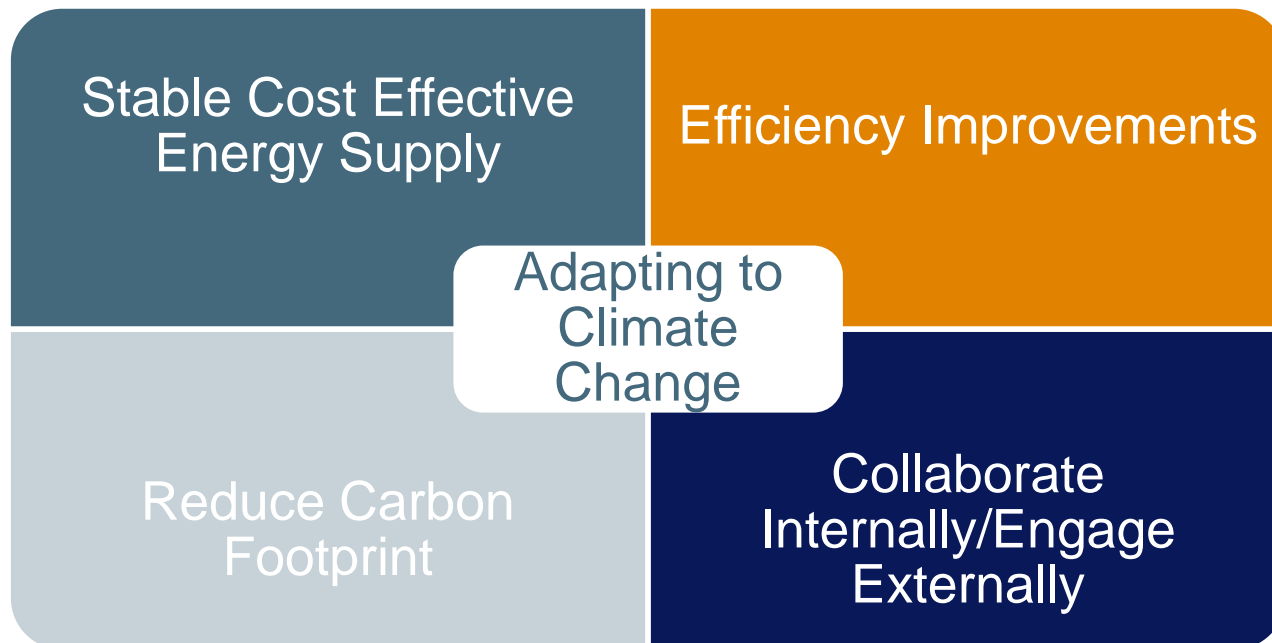
Global Water Strategy – Current focus

- Governance, roles, alignment across regions
- Water accounting framework implementation
- Stakeholder engagement plans/watershed view
- Water efficiency targets
- Valuation of water (full cost approach)
- Improved reporting

Energy and Climate Change Strategy

“Deliver sustainable, economic, and secure access to energy while balancing our demand, energy portfolio and greenhouse gas emissions and position the business to adapt to long-term climate change risks”

Strategic Focus Areas



Energy/Climate Change Strategy – Current focus

- ❑ Global team developing efficiency opportunities
- ❑ Shadow carbon pricing for 2017 investment decisions
- ❑ Carbon emission intensity reduction targets (2017-19)
- ❑ Options to support long-term alignment to global goals (ex. Paris Accord, SDGs)

Key Risks – Water/Energy and Climate Change

Water

- Access to water
- Extreme climate events
 - Drought conditions/access restrictions/flood events/containment capacity exceedence
- Regulatory change and increased uncertainty

Energy and Climate Change

- Inadequate or unreliable grid service
- Carbon policy/uneven tax treatment globally
- Reliance on coal generated energy

Tools and Management Approaches

Water

- Watershed approach-holistic risks/opportunities
- Full cost/value of water on a watershed basis
- Country-level risk registers for climate related predictions
- Ecosystem/habitat level protection related to water use

Energy/Climate Change

- Full potential/asset management efficiency programs
- Adaptation planning (ICMM Climate Adaptation Tool)
- Cost of Carbon
- Energy and GHG emission reduction targets

Variability-what are we seeing now

- ❑ Nevada droughts
- ❑ Boddington operational resiliency to lower precipitation
- ❑ Peru El Nino impacts on infrastructure
- ❑ Ghana historical drought cycles and hydro power impacts
- ❑ Tanami floods and access



Scenario Planning and Forecasting

- ❑ Ghana assessment of climate change impact
- ❑ Global adaptation framework

Adaptation framework categories (ICMM)

