

Contractor (Private) Financing for Water and Wastewater Facilities: Key Issues and Obstacles

Patrick Gallagher, JD

Peter Tunncliffe, PE, BCEE, DBIA, CIRM

CDM Smith



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Topics

- Background
- Private (“project”) finance model
- Role of design-builder
- Municipal issues / obstacles
- Some examples
- Outlook / Discussion



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

A Few Points

1. Private financing introduces a level of increased complexity
2. The cost-of-capital gap can be reduced with properly-structured transactions
3. The design-builder plays a key role
4. The outlook for increased use of private finance for water/wastewater projects is debatable



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Background – A View from the UK

“The cost of financing a project by traditional procurement will inevitably be less than the cost of private finance – the government can borrow at a lower rate than can a private sector entity. Hence the economic case for private finance projects must rest on achieving better value for money either

i) through cost savings in the management of the project (including more efficient recognition of lifetime costs and risks)

or

ii) through the delivery of a qualitatively superior project.”

- UK Parliament, *Commons Public Accounts Committee Report*, September 1, 2011



DESIGN-BUILD FOR WATER/WASTEWATER

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Background – Why Private Finance?

- Accelerate project implementation
- Life-cycle cost management and reduction
- More efficient risk allocation
 - Risk of new technologies
- Expand access to capital
- Promote innovation
- Undertake project development



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Background – Private Finance Models

A. Long-term lease concession

- Bayonne, NJ

B. Design-build-finance / lease

- Uncommon with water facilities

C. DBOF / Service Agreement (“Project” Financing)

Bayonne, NJ 40-year Concession

- O&M services (water and sewer), plus
 - Upfront payment of \$150m
 - \$500k annual lease fee
 - \$157m capital improvements over 40-years
- Initial capital
 - \$110m bonds at fixed rate of 5.07%
 - \$62m equity with 11% allowable rate of return
- Revenue
 - Initial 8.5% rate increase
 - 4% automatic annual rate increase, years 5 - 40



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Background - Municipal Finance

- Commonly 100% debt
 - Tax-exempt rates of approx 4% for AAA (March 2013)
- Secured by municipal or utility credit
 - General obligation bonds = general taxes
 - Revenue bonds / SRF loans = user revenue
- Financial (not so much, project) risk assessment
 - Sufficiency of projected user rates / utility revenues?
 - Accurate cost estimates
 - Debt service coverage



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

PROJECT FINANCE MODEL: Basic Elements

- Combination of equity and debt
 - 10 to 25% equity (returns of 10 to 20%)
 - 90 to 75% debt (rates of 4 to 8%)
- Secured by project agreements / revenue
 - Not company or municipal debt (“non-recourse”)
- Project risk assessment and allocation are critical
 - Project feasibility / viability
 - All risks identified and allocated to credit-worthy parties
 - Lenders want only credit risk

Simplified Project Finance Model



“Financeable” Service Agreement?

1. Service Fee paid by a credit-worthy party
2. “Take-or-pay” commitment
 - Fixed Monthly Charge, or
 - Minimum usage
3. Acceptable allocation of risks
 - Lenders assume only credit risks
 - SPC risks need to be mitigated
 - Client needs to assume certain risks
4. Lender “step-in” rights

Service Agreement

Step One: Financial Close

- Maximum time to arrange financing
 - 3 – 9 months
 - Finance Plan
 - Terms of Financing
 - Terminate if not closed (liability?)
- Project design, key permits, definitive agreements
- Debt interest rate / Fixed Capacity Charge typically set at closing



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Service Agreement: Facility Ownership

- Initial ownership by SPC
 - May “share” income tax benefits
- Client options to purchase
 - After X years
 - If change in law/force majeure
 - If default
 - At end of term
 - Purchase price or formula will vary
- Additional Client options at end of term
 - Extend service agreement
 - SPC to restore site



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Special Purpose Company

- Typical forms
 - Limited Liability Company
 - Limited Partnership
 - Corporation
- Members/partners/shareholders can include
 - Design-Build contractor
 - Design engineer
 - O&M contractor
 - Active or passive equity investor
- Purpose is two-fold
 - “Ring-fence” project’s capital funds / operating revenues
 - Limits the liability of SPC proponents (equity participants)



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

ROLE OF DESIGN-BUILDER: “Construction Completion Guaranty”

- Fixed Schedule
- Fixed Price
- Performance Test



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Design-Builder in Project Financing

- Fixed Schedule

- Client (end user) does not pay until placed in service
- Limited SPC funding to pay monthly debt interest
 - Capitalized interest fund amount
- What does the Service Agreement say concerning:
 - Added costs due to delay outside the SPC's control?
 - Added time?
 - Definition of events outside the SPC's control?
 - Liquidated damages for unexcused delay?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Design-Builder in Project Financing

- Fixed Price

- Limited SPC funding for cost overruns

- Equity financing agreement(s)

- What does the Service Agreement say concerning:

- Added costs due to change in law and other causes beyond the SPC's control?
 - Added costs due to client-requested changes?
 - Escalation until financial close date?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Design-Builder in Project Financing

- Performance Testing
 - SPC may look for guarantees of operating costs
 - SCP and operator sign-off (in addition to client)
 - What does the Service Agreement say concerning:
 - Client approval of performance test?
 - Performance testing requirements?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

MUNICIPAL ISSUES / OBSTACLES

1. Cost of capital
2. Local preferences
3. Complexity / transaction costs



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Key Issue: Cost of Capital

- Premium for private finance
 - Approx 100 to 300 basis points
 - Some factors = service agreement; project risks; credit-worthiness; tax-exempt debt
- Potential Benefits
 - Risk transfer (“risk-adjusted” cost of capital)
 - Project cost savings and certainty
 - Accelerate project delivery
 - Access to capital

Risk-adjusted Cost of Capital

- If adjusted for risk, how would cost of public finance compare to cost of private finance?
 - Risk of construction cost overruns
 - Risk of delay
 - Risk of operating cost overruns
 - Risk of project performance
 - Risk of contractor default / dispute

Canada and Europe: “Value for Money”

- Public sector comparator
 - Risk-adjusted NPV of estimated life-cycle cost
 - Based on public financing
- Selected private sector proposal
 - NPV of projected service fees
 - Based on private financing
- If lower private NPV = value for money

Key Issue: Local Preferences

- Public, not private operation
- Public, not private ownership
- Comfort with traditional financing
- Comfort with traditional project delivery



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Key Issue: Complexity

- Service Agreement:
 - Development period and conditions for financial close
 - Change in financial markets at financial close
 - Lender “step-in” rights
 - Options to purchase
- Procurement:
 - Would be a first for most local water/wastewater entities
 - Experienced advisors can help
 - Transaction costs can be high

EXAMPLE: Carlsbad Desalination

- \$953m Total Funding
 - \$781m debt (bonds) at 4.78%
 - \$172m equity at 10-15% return (reportedly)
- Why private finance?
 - Market-driven project by private firm
 - Acquired preferred site
 - Undertook project development at-risk

Example: Philadelphia Biosolids

- \$75m Total Funding
 - \$68m debt (bonds) at 6.2% (Dec 2009)
 - \$7m equity at 12% return
- Why private finance?
 - Outsourcing of biosolids as a business unit
(long-term operations, asset management, capital investment, etc.)
 - Optimal, long-term balancing of risks and rewards
 - Procurement law supported Service Agreement with private ownership and financing



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Example: Scottsdale Water Treatment

- \$32m Total Funding
 - \$25m tax-exempt bonds at variable interest rate (1984)
 - \$7m equity at 2% cash-on-cash return
- Why private finance?
 - Less costly due to federal income tax benefits
 - City policy favored outsourcing of project development, design, construction and operations (first surface water treatment plant)



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

OUTLOOK – “The Rise of DBOF”

(February 2013, *American Water Intelligence*)

- 30% of awarded project value in 2012
 - Three DBOF projects, including Carlsbad desal
- Eleven DBOF project tracked in 2012
 - Five were biosolids or biogas
- All tracked projects in 2012
 - > \$100m: 32% using alternative delivery
 - < \$100m: 95% using design-bid-build



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

OUTLOOK - Jan 1988, *Public Works Financing*

- “Conversion of the federal sewerage grants program to a revolving loan program is expected to increase demand for alternative financing in that market by year-end.”
- “Wastewater plants in New Jersey and Pennsylvania are also hot prospects.”
- Private companies want help with state and local infrastructure financing and with legal barriers to public/private ventures.”



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

OUTLOOK – “Water industry leaders say financing is no problem”

(December 2012, *American Water Intelligence*)

- Survey by accounting firm WeiserMazars
 - 11% municipal
 - 89% privately-owned water utilities
- “A lot of these companies do have access to the tax-exempt bond market and, honestly, over the last few years they have been able to raise debt in that market very easily.”



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

OUTLOOK

(2012 Strategic Directions in the U.S. Water Utility Industry, A Black & Veatch Report)

- Funding or availability of capital is among the most important issues facing utilities
- “... according to survey results, utility leaders – or perhaps their governing bodies – show little interest in pursuing private financing.”
- Approx 31% are considering the possibility of public-private-partnerships to support their capital needs



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

DISCUSSION

Impact of federal proposals?

- “America Fast Forward” bonds
- National Infrastructure Bank
- Eliminate tax-exemption for municipal bonds
- Expand State Revolving Fund
- Water Infrastructure Finance and Innovation Act (WIFIA)
- Eliminate state volume cap for private activity bonds



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

DISCUSSION

Where is the “Value for Money?”

- Benefits in many cases simply do not exceed the financing premium,
or
- Risk-adjusted cost of public capital not accurately considered?

DISCUSSION

Is design-build-operate (DBO) with public financing and ownership a more attractive model than DBOF?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

DISCUSSION

Actions that might expand the use of DBOF for water/wastewater facilities:

- Federal?
- State?
- Local?
- Private firms?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

DISCUSSION

Where are the DBOF projects?

- Desalination
- Biogas to energy
- Biosolids to marketable product
- Conventional drinking water treatment plants
- Conventional wastewater treatment plants
- Long-term concessions
- Canada



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013

Thank You

- Final Comments or Questions?



**DESIGN-BUILD FOR
WATER/WASTEWATER**

Hilton Walt Disney World

Orlando, FL

March 20-22, 2013