



Water/Wastewater Energy and Construction Efficiency

A Seamless and Energy-Efficient Approach to Upgrading Water, Wastewater and Stormwater Infrastructure



Water is at the core of sustainable development and is critical for socio-economic development, energy and food production, healthy ecosystems and for human survival itself. Water is also at the heart of adaptation to climate change, serving as the crucial link between society and the environment.

United Nations





**Water/Wastewater Energy and
Construction Efficiency**

Welcome:
APEC Southern Illinois Chapter

Questions to Consider:

- How can you or your client best access critical project funds without a bond issue?
- How are the facilities you serve addressing “brain drain” and manpower shortages?
- When was the last time you executed a water project where stakeholders were satisfied at the end of the construction or commissioning process?

Agenda

- **Introductions**
- **Overview of Trane's Single-Source Design/Build Approach**
- **Overview of Services Provided to the Water Sector**
- **Access to Funding (Federal, State, ESAs and ESPC)**
- **Questions and Next Steps**



Introductions



Jim Johnston

- Based in St. Louis, MO
- Marine Corps CH53E Helicopter Crewchief
- 20 Year in Heavy Mechanical/Electrical Construction
 - Energy Efficiency
 - Oil/Gas Plants
 - Water/Wastewater
 - Utility-Scale Renewables
 - NAVFAC Federal Contracting
- Altaire Systems (ADAPT)
- Now Head Up Trane Technologies Water/Wastewater/Stormwater Group for Midwest



Overview of Trane's Single-Source Design/Build Approach





Trane Technologies/Omnia Partners Single-Source DB Approach

- **Omnia Partners, formerly US Communities (a cooperative purchasing contract)**
- **Allows public entities such as cities, towns, municipalities to single-source Trane Technologies and their partners to develop, design and execute negotiated design/build water projects**
- **Omnia satisfies the public competition requirement for most states outright**
- **All stakeholders have a seat at the table as this model is true design/build**
- **Three step process: PA, IGA, GMP construction**



Trane Technologies/Omnia Partners Single-Source DB Approach

Continued...

- **Advantages to this approach**
 - **Operators get the design engineering firms, contractors and equipment that they choose**
 - **Local official and project stakeholders get a GMP contract without the risk of contentious change orders due to scope variance**
 - **To avoid supply chain issues, long lead time equipment can be ordered at the 60% design milestone**
 - **CIP budgetary offsets can be gained through automation and service inclusion**
 - **Total time and cost to construct is greatly reduced both through process efficiency, as well as change order elimination**



Overview of Services Provided to the Water Sector



Overview of Services We Provide to the Water Sector

- **Construction Disciplines Offered Directly or Through Partners**
 - **Civil/Grading**
 - **Mechanical**
 - **Electrical**
 - **Automation (SCADA)**
 - **Water/Wastewater/Stormwater Piping Inspection Replacement/Repair**
 - **Modularization and Building Prefabrication**
- **Energy Efficiency and Revenue Positive Solutions**
 - **Plant operation efficiency gains (both in kWh and in budgetary dollars)**
 - **Elimination of deferred maintenance issues**
 - **Meter testing**
 - **Site lighting and building controls**



Access to Funding (Federal, State, ESAs and ESPC)



It's Like They Are Printing Money for the Engineering and Construction Industry

American Rescue Plan Act (ARPA)

\$1.9 Trillion

Infrastructure Investment and Jobs Act (IIJA)

\$1.2 Trillion

Inflation Reduction Act (IRA)

\$700 Billion

CHIPS Act

\$250 Billion



How Can You Get Your Piece of the Cake?



Access to Funding (Federal, State, ESAs and ESPC)

- **Federal**
 - ARPA, IIJA, IRA, CHIPS Act
 - Elimination of the fear associated with obtaining federal funding (oversight, clawback, etc.)
 - Teams of grant writers that focus solely on obtaining federal dollars and lobbying for specific projects. Grant writing fee and lobbying efforts are paid through the ARPA legislation.
 - In most cases federal funding is available up to \$10MM with little to no oversight
 - Testing and project evaluation may be a prerequisite for funding (state-by-state)
 - IRA includes updated 179D tax incentives capture, including abandonment
 - Each of these pieces of legislation have available funding for water infrastructure and efficiency



Access to Funding (Federal, State, ESAs and ESPC)

8

Replace Public Sector Revenue Loss

1 Public Sector Revenues

Recipients may use these funds to provide government services, up to the amount of revenue loss experienced due to the COVID-19 public health emergency.

1 Determine revenue loss, using one of two available options:

- A Elect “standard allowance” of up to \$10 million to spend on government services through the life of the program, which greatly simplifies the program for small localities NEW
- B Calculate actual revenue loss according to Treasury formula
 - » Calculate revenue loss either on a calendar or fiscal year basis NEW
 - » Must adjust actual revenue totals for the effect of tax cuts and tax increases that are adopted after January 6, 2022, to more accurately reflect revenue loss due to the pandemic NEW

2 Spend on government services up to the revenue loss amount

- Government services generally include **any service traditionally provided by a government** unless Treasury has stated otherwise, such as:
 - ✓ Construction of schools and hospitals
 - ✓ Road building and maintenance, and other infrastructure
 - ✓ Health and other services
 - ✓ Environmental remediation
 - ✓ Provision of police, fire, and other public safety services (including purchase of fire trucks and police vehicles)

 U.S. Department of the Treasury, Coronavirus State & Local Fiscal Recovery Funds



Access to Funding (Federal, State, ESAs and ESPC)

- **State**
 - **Administer the State Revolving Funds which are fed by ARPA, EPA and IIJA funds**
 - **State initiatives and rural infrastructure redevelopment funding**
 - **State lobbying efforts for critical infrastructure (\$750K for WWTP Upgrade)**
 - **Special SBA disadvantaged set-aside appropriations**
 - **Additional guidance/restrictions on wage rates and crew composition for contractors**



Access to Funding (Federal, State, ESAs and ESPC)

- **ESAs (Energy Services Agreement or EaaS)**
 - No capital outlay by customer/client
 - Off-balance-sheet financing (similar to lease model)
 - Project is paid for through energy savings as an OPEX expense
 - Does not have to include only energy savings equipment and controls
 - No need for public entity to solicit a bond issue
- **ESPC (Energy Savings Performance Contract)**
 - On-balance-sheet financing
 - Project is paid for through only energy savings and is guaranteed
 - Typically IL is limited to a 20-year term limit for ROI



Questions?



Thank You!

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