FERC Licensing and USACE Permitting

NHA April 2013

American Municipal Power, Inc.

AMP and Its Members:

- American Municipal Power, Inc. (AMP) is a nonprofit leader in wholesale power supply for municipal electric systems. We help member communities control their destinies in the volatile world of power supply and provide a wide range of value-added services
- AMP serves 129 members - 128 municipal electric communities in the states of Ohio, Pennsylvania, Michigan, Virginia, Kentucky and West Virginia, as well as the Delaware Municipal Electric Corporation
  - Combined, these locally owned and operated electric systems serve approximately 625,000 customers and have a non-coincident peak of approximately 3,500 MW

AMP's Interest in Hydro

- In the early 1990's, through 42 of its members, AMP participated in the development of the Belleville Hydro Project
- The Belleville Project was constructed in the mid 1990s and has been in successful operation since 1999
- Belleville is a 42 MW plant that has averaged a capacity factor greater than a 65%
- The success of this project helped interest AMP's members in additional hydro capacity for long-term energy and capacity certainty, and to help provide renewable energy in their portfolios
- Hydro is the best source of renewable energy in the Midwest due to its longevity, long-term cost profile, lack of emissions and fuel risk, limited regulatory risk and the amount of energy produced

Continued Hydro Interest

- In December 2006, AMP commissioned MWH to do a study of the best sites on the Ohio River
- Today, AMP and its members are developing the top 5 projects with 4 of them under construction
- Despite high capital costs, arduous permitting requirements, and construction risks, the projects are a valuable asset to AMP's members

Federal Processes Concerns:

- **CWA 401** – The process should be limited to Clean Water issues and not pull in ancillary issues such as recreational improvements
- **USACE 404/408 Permitting** – The 408 approval process is redundant with the 404 process and the FERC Licensing process
- **USACE Funding** – The Corps should be adequately funded from the time of a FERC Preliminary Permit being issued so that all Licensing and Permit issues are known before Section 404 permitting starts
- **Timelines** –State and Federal Agencies should be held to appropriate deadlines for the review and approval process
- **Lead Agency** -- FERC should be the lead agency in all cases

Examples of USACE Permitting Time Frames

Project	404 Permit Application Date	404 / 408 Issuance Date	Duration from Application
Cannelton	April 11, 2008	May 1, 2009	1 year and 20 days
Smithland	April 11, 2008	October 30, 2009	1 year and 7 months
Willow Island	February 4, 2008	December 3, 2010	2 years and 9 months
Meldahl	December 15, 2008	April 13, 2010	1 Year and 4 months

- The Cannelton and Smithland Projects were through the Louisville District whereas Meldahl and Willow Island were through the Huntington District Corps of Engineers
- The Meldahl project benefitted from a newly issued FERC License

"408" Approval

- Any modification to an authorized Corps project will require a "408" approval from the Chief of Engineers (33 U.S.C. 408)
- Approval authority has not been delegated to the division or district
- In-house, vertical team review
- Regulatory should not be the lead business line with respect to coordination and review under 33 U.S.C. 408
- Regulators lack engineering expertise to make this determination
- Regulatory lacks the resources to work on the 408 review
- **404 CWA review and 408 approval reviews should be concurrent and one may help inform the other**
- Ideally, the Corps 408 and 404 reviews should be concurrent with the FERC's NEPA and licensing process

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Financing Challenges with Delays

- Documents and Studies needed for 404/408 Permitting can cost millions of dollars
- A developer must have significant capital available to cover costs through the permitting stage, including costs for: design, subsurface core drilling, hydraulic model studies, and initial payments for equipment with long lead times
- Long-term financing is unlikely without all permits in hand which drives when you can finance (favorable or unfavorable market conditions)
- As a result, a developer faces millions of dollars of risks which are at the mercy of the USACE due to regulations and other red tape surrounding permitting
- What are examples of these and how do you address them?

Examples of High Hurdling

- Smithland Hydro Project
  - Flood Elevations caused by the addition of a Hydro Project including temporary and permanent effects, HECRAS modeling, and Pixel Counts at a cost of hundreds of thousands of dollars
  - Changes in Transmission ISOs/RTOs
  - All overcome by last minute studies and political capital
- Willow Island and Meldahl Hydro Projects
  - Excessive Archaeological Investigations ($Millions)
  - Soil Contamination (Iron and Arsenic Content) ($1M)
  - All overcome by last minute studies and political capital
- Meldahl Hydro Project
  - Archaeological requirements went beyond what the State Historic Preservation Office required at a cost of $1M+.

Additional Hurdling

- Delays can cause cost escalation due to long lead times for equipment
  - This can only be mitigated through early partial payment and;
  - Provisional “Out” types of clauses with manufacturers allow ways for Owners to have an off-ramp during development should a project fall through
  - However, these are usually time sensitive with global commodities markets

So What's Next?

- The Hydro message of "clean renewable power with little overall impact" and job creation needs to get down to a regulatory level
- Hydro Development must *become* a Corps Mission (i.e. given greater priority)
- Legislative changes must occur for continued development of this valuable resource!

Cannelton:

Smithland:

Willow Island:

Meldahl: