Power Supplies For New Municipals:

Designing An effective RFP And Evaluating Responses

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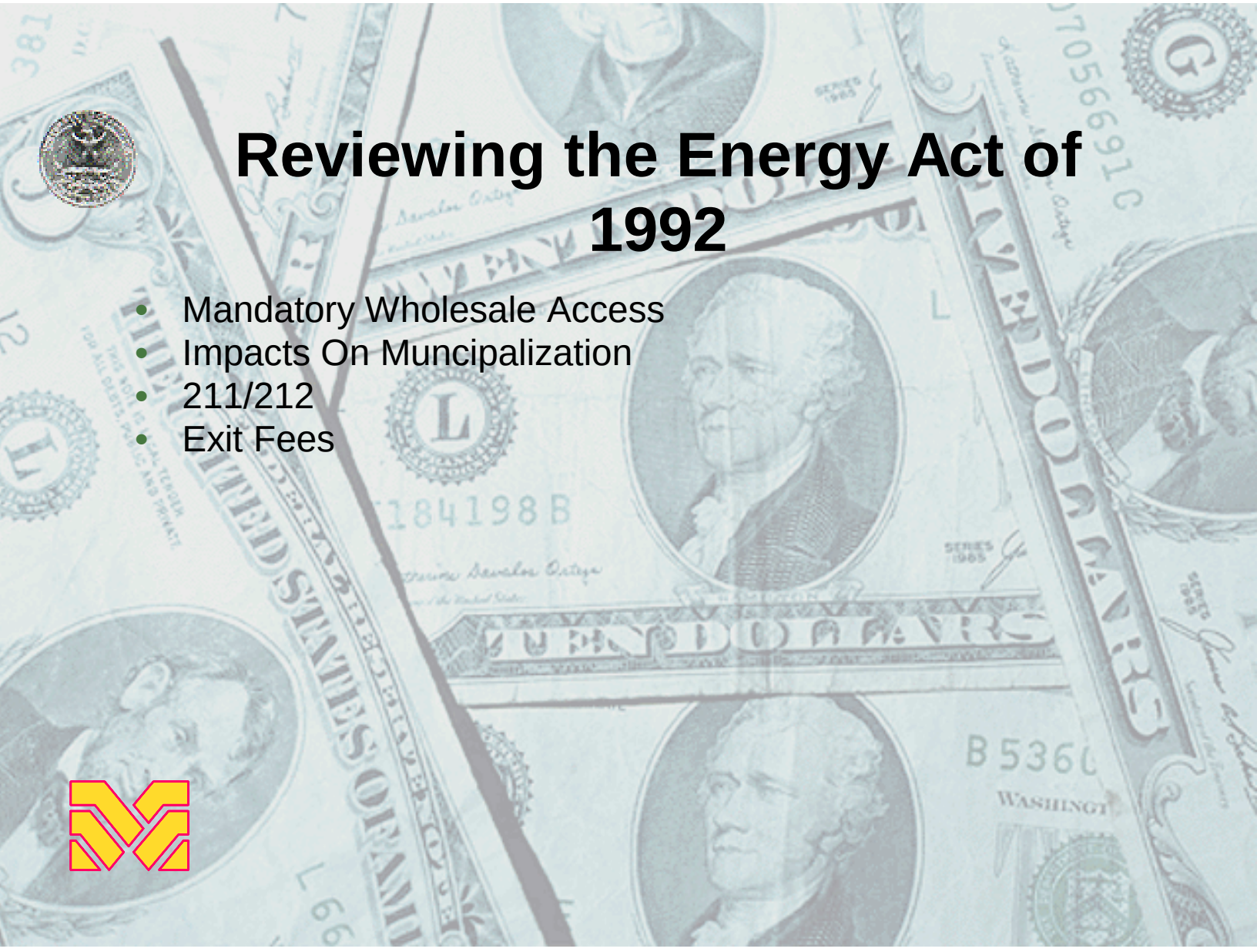
Overview

- Introduction and Opening Remarks
- Reviewing the Energy Act of 1992
- Determining the Structure of A Successful Municipalization
- Purchasing Power By RFP
- Evaluating the Response
- How Can Vendors Help With Implementation
- That's All Folks

Introduction and Opening Remarks

- By-pass Or Compromise: two likely outcomes
  - By-pass: Actual replacement of the existing supplier by a new energy supply arrangement
  - Compromise: Rearrangements of existing supplies with new prices and new conditions
- Currently approximately 80% of by-pass initiatives end in compromise

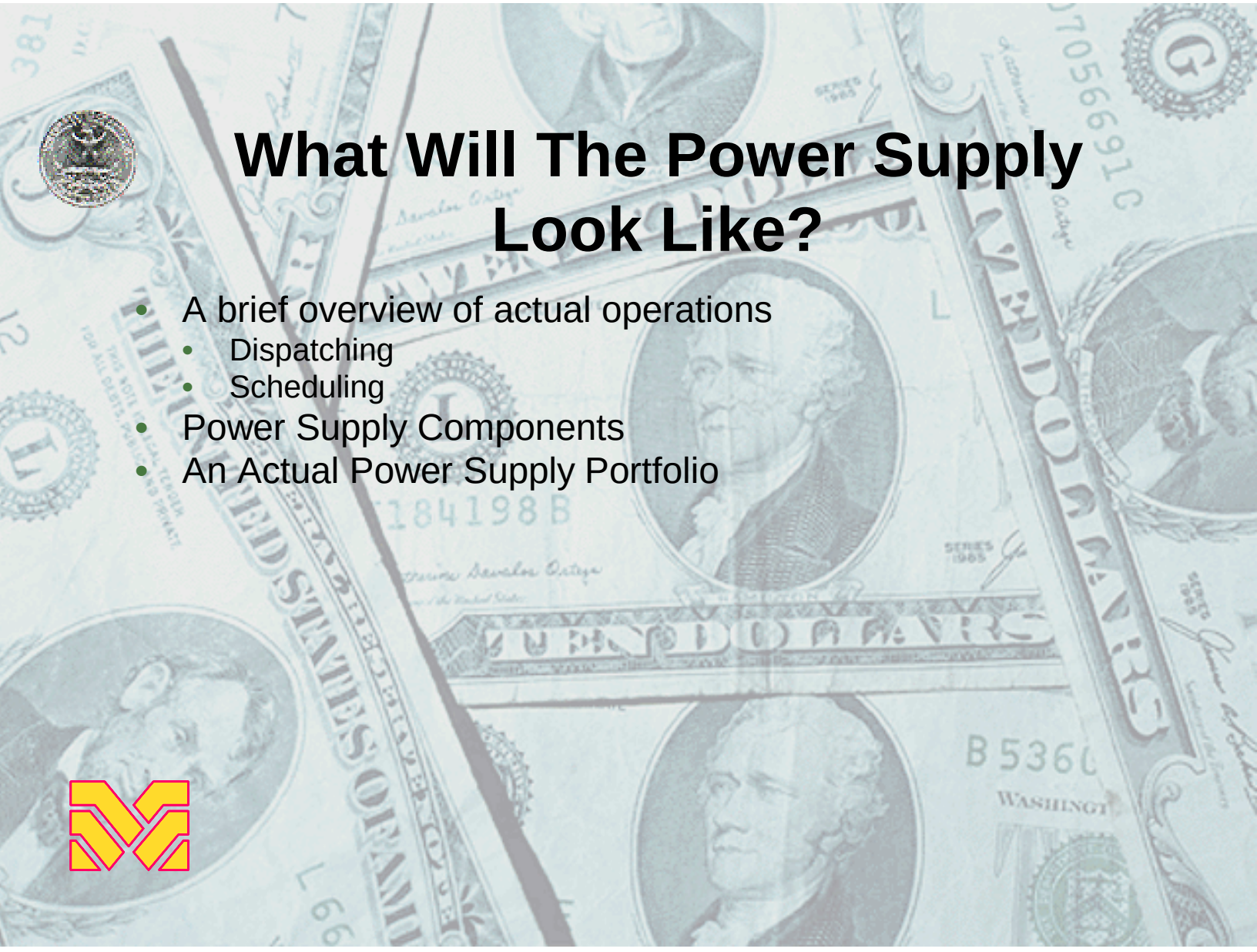


Reviewing the Energy Act of 1992

- Mandatory Wholesale Access
- Impacts On Muncipalization
- 211/212
- Exit Fees

Determining the Structure of A Successful Municipalization

- What do voters want?
  - Price
  - Service
  - Simplicity
- What did congress deliver?
  - Litigation
- What should city leaders deliver?
  - The simplest most straightforward path to the ultimate goal



What Will The Power Supply Look Like?

- A brief overview of actual operations
  - Dispatching
  - Scheduling
- Power Supply Components
- An Actual Power Supply Portfolio

An Electric System

Where Are The Moving Parts?

- In the absence of moving parts, administering an electric supply has many similarities to managing your garden -- you can give all the orders you want, but the plants tend to follow their own lead
- The only "system" functions are run by the system dispatcher and the schedulers

What is this man doing?

The Power Supply Dispatcher

- The dispatcher usually fulfills three functions:
  - Overview of transmission and distribution functions
  - Short term ("real time") transactions
  - Management of electric frequency by adjusting plant operations
- These three functions establish a "control area" -- an area under the control of a dispatch center
- As a general rule, these are simple operations without significant interest in our context since most power supply decisions are significantly divorced from these functions

The Power Supply Scheduler

- Schedulers meet on a weekly basis to coordinate purchase and sales, make significant economic dispatch decisions, and to administer bulk power contracts
- Schedulers can administer our power supply without our having any contact with the dispatch center or the dispatchers
- To be exact, much of the drama of the power system is completely unrelated to the day to day economic issue concerned with the purchase and sale of electricity to meet our loads

Actual Power Purchase Mechanics

- The power supply is actually a series of contracts that provide specific solutions to operating problems
  - Base load power is rarely dispatched -- it represents blocks of "take or pay" resources
  - Peak load power operates at low load factor -- it must be dispatched to meet system peaks
  - Spinning reserve (and a variety of similar requirements under similar names) meets the reserve requirements that your load puts on the system
- Actual operational requirements are often clearly summarized under the serving utility's FERC comparability tariff

PG&E Comparability Tariff

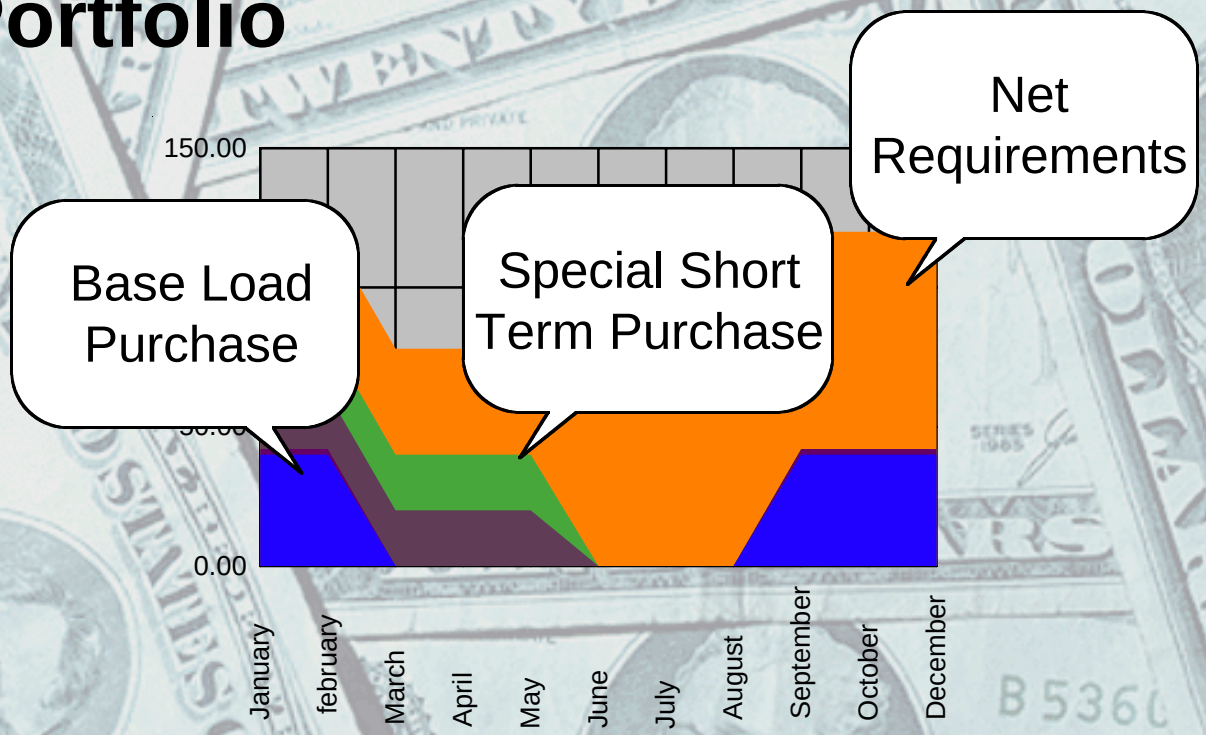
What Information Does This Provide?

- Costs of specific network integration services
- Transmission costs
- Operating requirements
- Losses
- Operating Rules
- Interconnection Requirements

How does this function in reality?

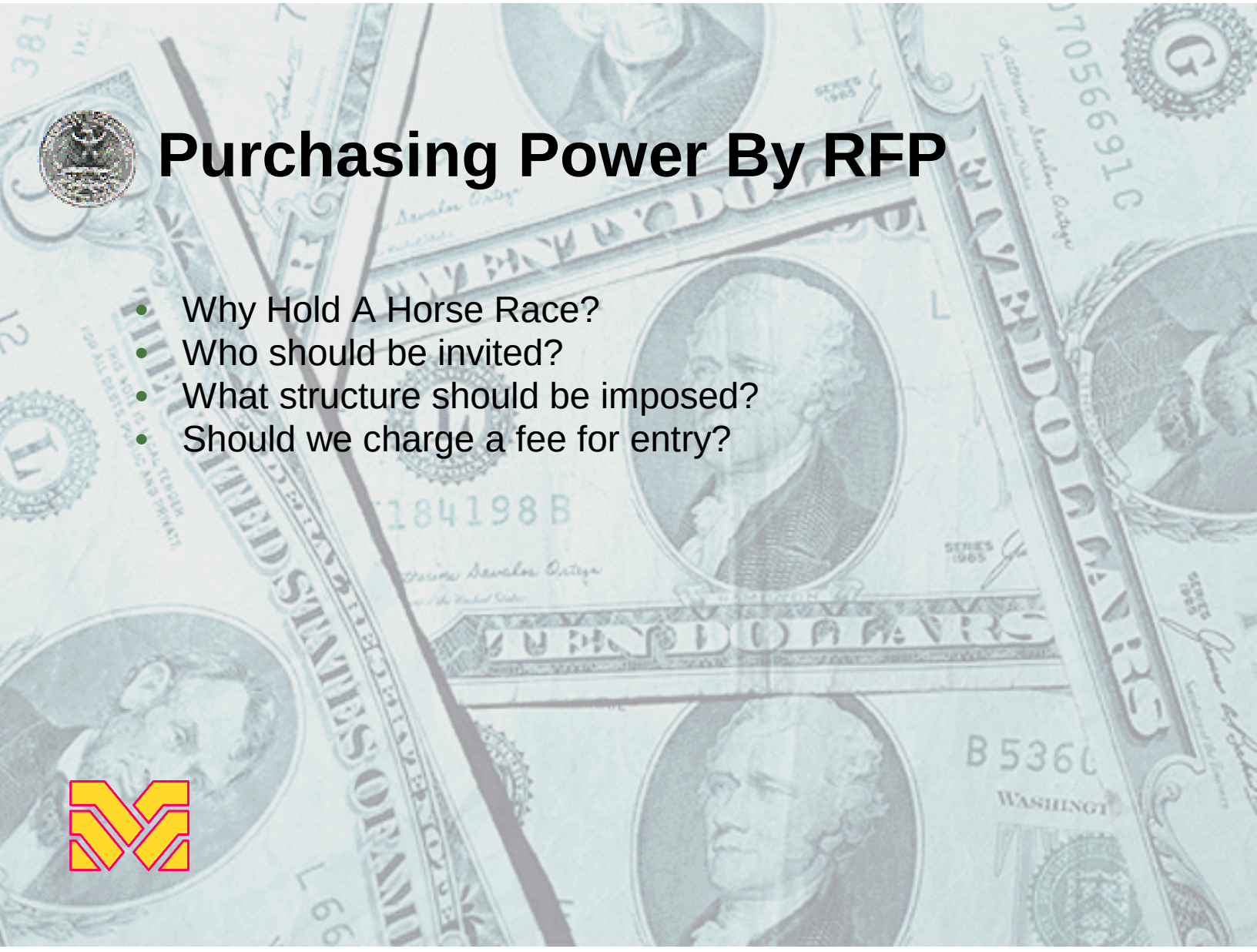
- A portfolio of resources must be procured to enable your system to operate under the Network Tariff
- In practice this will require a set of resources -- often procured from different suppliers
- The next page shows a yearly diagram showing power supplies for one of our clients

An Actual Annual Supply Portfolio



Actual Example

- In this example hourly differences from the weekly and daily schedules are met by the net requirements service
- The thin bar above the base load block also provides some coverage fro hourly excursions
- Special purchases are layered in above the base load block and below the net requirements



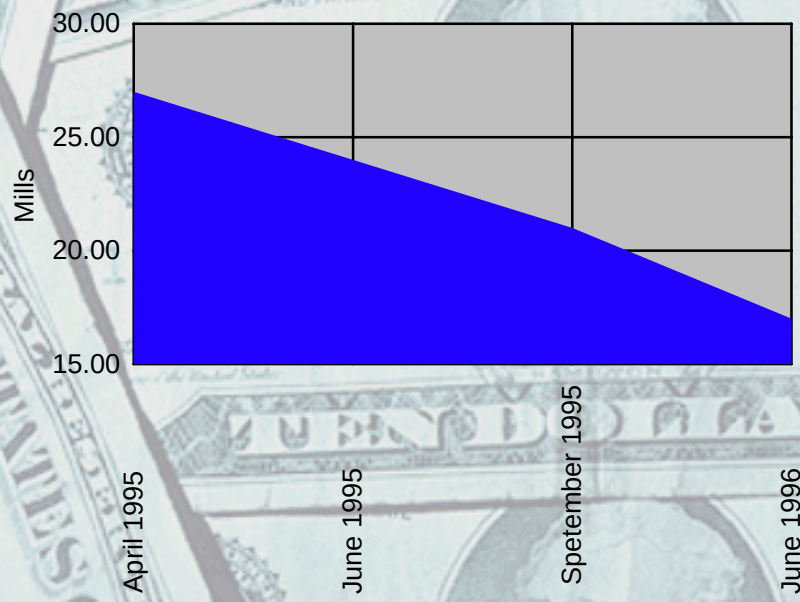
Purchasing Power By RFP

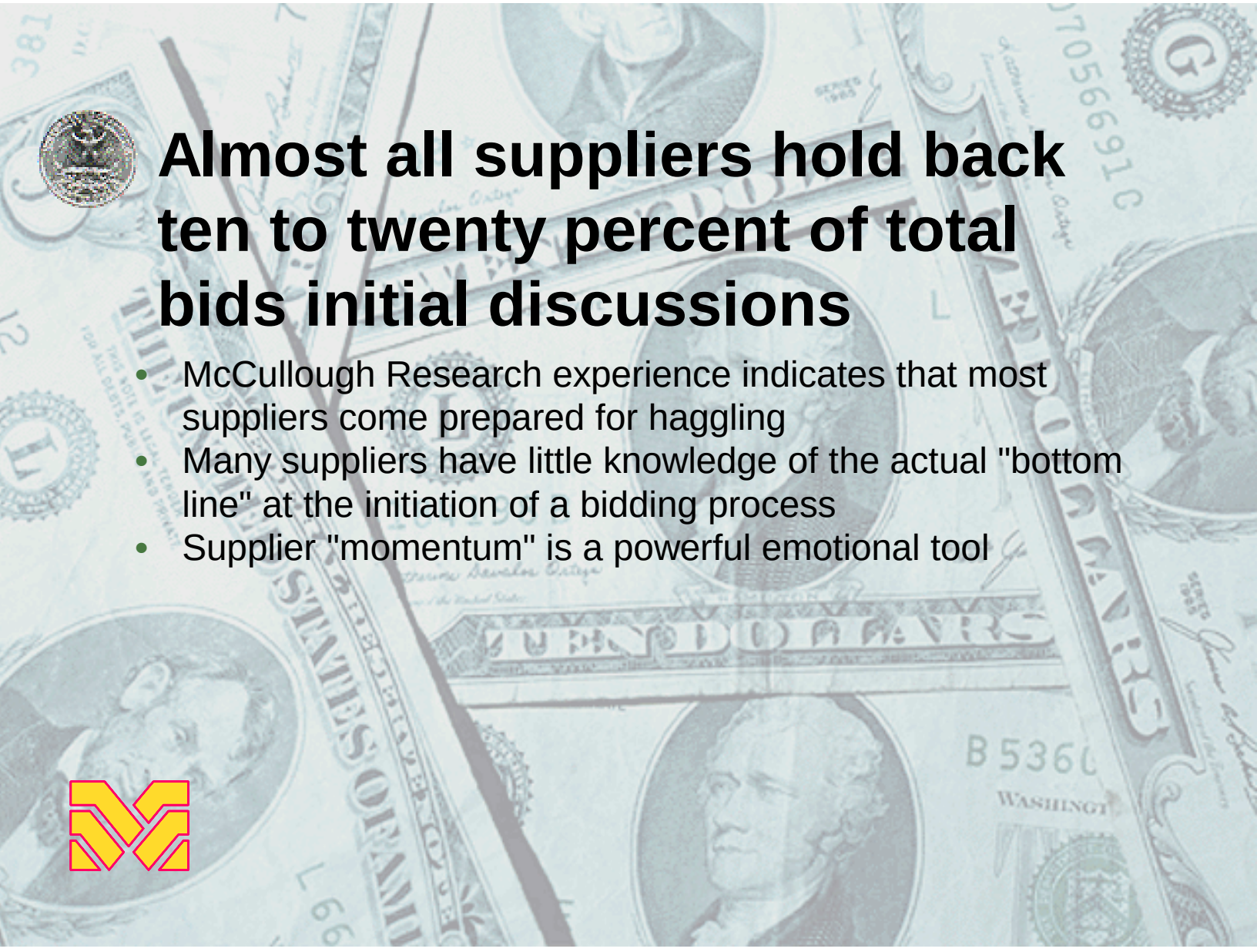
- Why Hold A Horse Race?
- Who should be invited?
- What structure should be imposed?
- Should we charge a fee for entry?

Why Hold A Horse Race?

- Almost all suppliers hold back ten to twenty percent of total bids initial discussions
- Supplier leaning curves are *Very* steep
- Additional market information often educates buyers as well

Industry "A" Bid Experience





Almost all suppliers hold back ten to twenty percent of total bids initial discussions

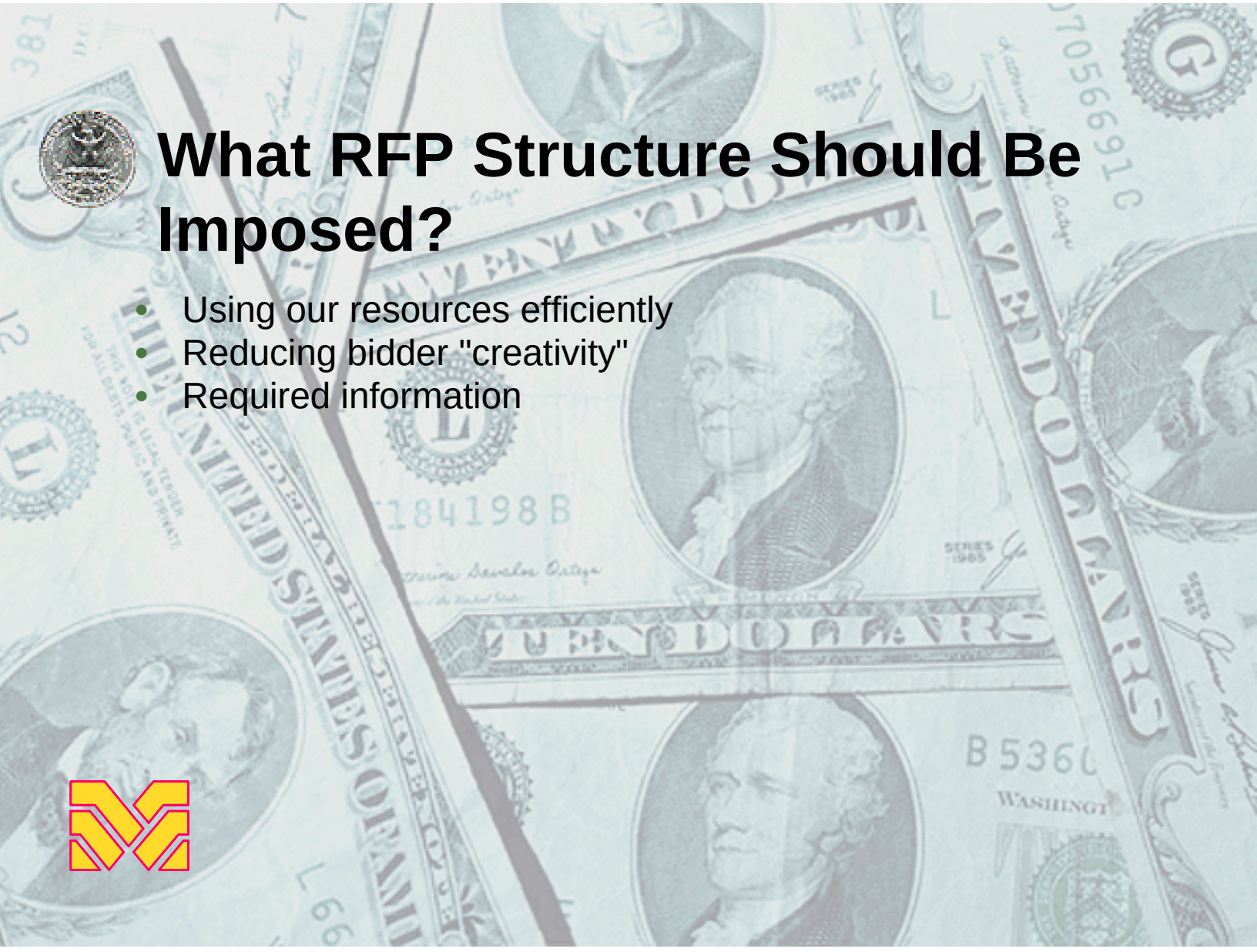
- McCullough Research experience indicates that most suppliers come prepared for haggling
- Many suppliers have little knowledge of the actual "bottom line" at the initiation of a bidding process
- Supplier "momentum" is a powerful emotional tool

Supplier leaning curves are *Very* steep

- Our experience is that suppliers have a lot to learn
- Transmission arrangements are a common source of learning curve "value"
- For example, many existing utilities have power contracts that already involve transmission in the opposite direction of the proposed transaction
- This is called "counter-scheduling" in real world operations

Additional market information often educates buyers as well

- Many buyers structure their bid around a limited set of resources
- The bid process often firms up the possible inter-rationships between bidders
- A common example is timing:
  - Bidder A has resources for one to five years
  - Bidder B has resources for six to twenty years



What RFP Structure Should Be Imposed?

- Using our resources efficiently
- Reducing bidder "creativity"
- Required information

Using our resources efficiently

- A large number of bids require that the bids be comparable
- It is best if the bidders provide similar formats -- usually in a spreadsheet format
- Amorphous bids should be eliminated
- Invitations to negotiate should be eliminated
  - Many bidders in the current changing environment attempt to avoid commitment
  - Early bid termination dates usually mark unrealistic proposals

Reducing Bidder "Creativity"

- McCullough Research has gone to a "quantum" approach
- Bidders are invited to provide 10 megawatt blocks with a minimum capacity factor
  - This allows easy comparison between competing bidders
  - The minimum capacity factor allows easy classification of peak and baseload resource
- The "quantum" approach also reduces the need to provide bidders with detailed load information

Ancillary Services

- Most real transactions have reduced ancillary services to one mill or less of the total bill
- Most ancillary services are services -- a small component in the total package
- Definitions MUST be taken from external sources
  - Some bidders can create as many as 67 ancillary services (BPA)
  - Other bidders offer such services but have little or no understanding on how to provide them
    - Enron once offered load following services across phase shifters

Information For Bidders

- Bidders tend to request more information than they actually use
- Most pricing is currently based on supplies rather than specific demand characteristics
- Overall loads -- on a monthly or daily basis -- are useful, but not required
- More important information is location, transmission arrangements, and operating requirements

Who Should Be Invited?

- Recently the building management association of San Francisco proposed eliminating brokers from participation because they "lacked experience"
- In reality, the brokers and the utilities are often difficult to distinguish
  - Enron, LG&E, Illinova and others are closely tied to large retail utilities
  - New entrants often are staffed with skilled personnel and bring new solutions to old problems
  - More is often better

Should We Charge A Bidding Fee?

- Bidding fees have ebbed and flowed
- Sacramento Municipal Utility District required a $50,000 deposit in their Rancho Seco solicitation
- ABAG recently chose to charge a $1,000 fee for their RFP
- Most industrial RFPs do not require a payment
- Overall, fees may complicate the process with little benefit

Response Evaluation

- Breaking the whole into parts
  - Ancillary Services
    - Defined ancillary services should be taken from the FERC comparability tariff
  - Energy
  - Capacity
- Bids that cannot be reduced to numbers are likely to be unhelpful
- Dealing with deadlines
- Dealing with "welshers"
- Indexed bids

Dealing With Bid Deadlines

- Many bidders now provide a final date for their bid
- Little evolving information actually occurs in the market so this is an artifact rather than real business information
- McCullough Research experience is that bid deadlines are seldom realistic or relevant

Dealing with "Welshers"

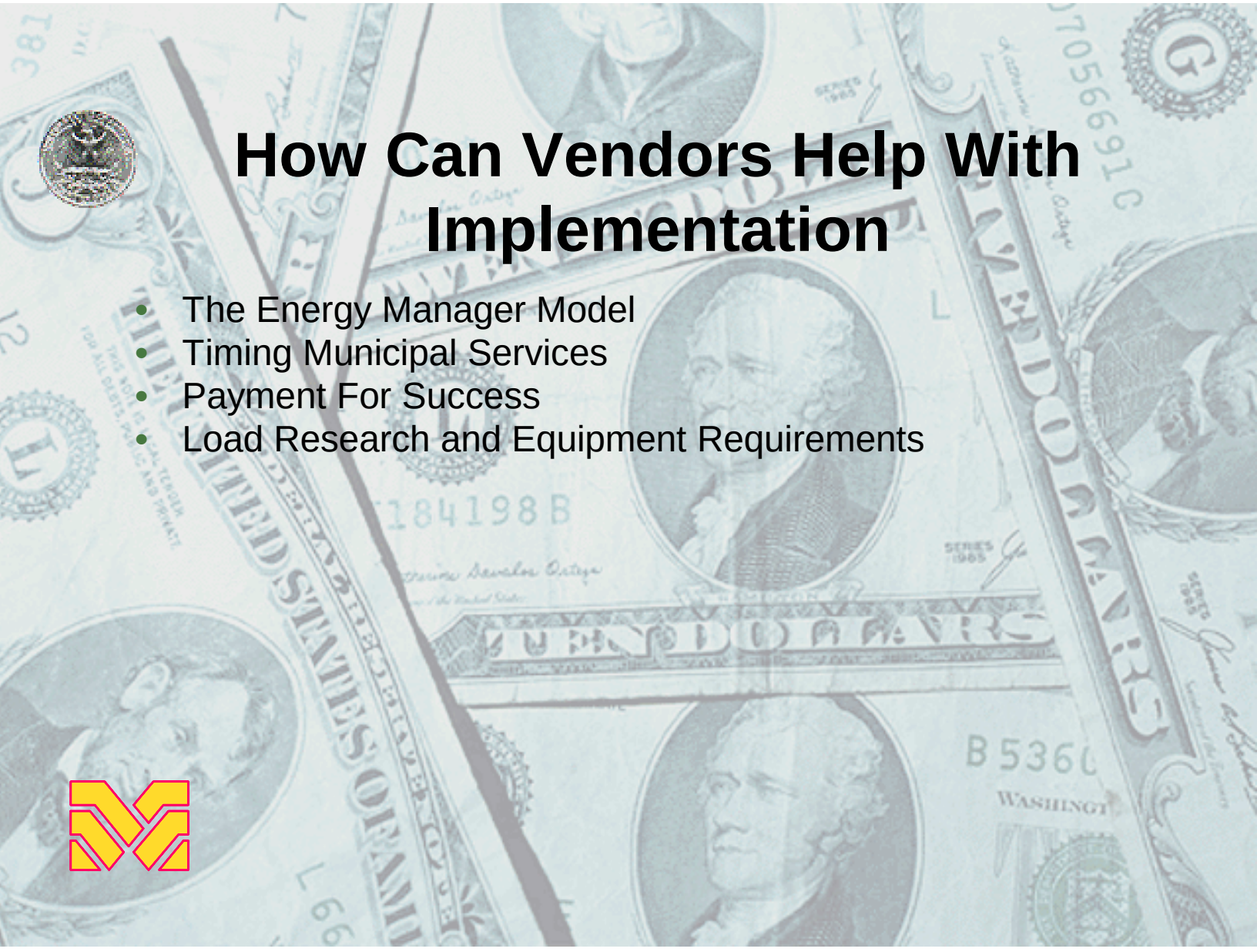
- Current practice is for a few bidders to rewrite their bids on the pretext of errors
- We have found that this practice causes more problems than it is worth
  - Other bidders are placed at a disadvantage
  - Bidders with "errors" can repeat the performance later
- McCullough Research recommends a "put up or shut up" rule

Indexed Bids

- While fixed price bids are still in the majority, an increasing share of the market is at indexed prices
- Most sellers are very unsophisticated when it comes to indexing
- Many sellers will index to an inappropriate location (NYMEX COB) regardless of where the real power transaction is taking place

Caveat Emptor

- A number of utilities have recently started to use indexes as hidden surcharges
- Pacific, for example, proposes indexing to NYMEX COB futures even though NYMEX contracts are for peak energy only
- Pacific's scheme contains a 2.8 mill hidden surcharge



How Can Vendors Help With Implementation

- The Energy Manager Model
- Timing Municipal Services
- Payment For Success
- Load Research and Equipment Requirements

The Energy Manager Model

- Using Existing Supplier Expertise
- Timing Municipal Services
- Payment For Success

Using Existing Supplier Expertise

- Most suppliers currently are affiliated with an existing utility system
- These suppliers have a successful history of billing, distribution, credit, and management issues
- Suppliers also are able to draft personnel to meet needs
- Suppliers are able to measure, estimate, and cost expansion and replacement options

Timing Municipal Services

- Many potential municipals would like to see full services on the first day but fear the implementation process
- Few new municipals would wish to "lock in" a relationship with a new supplier
- Suppliers can agree to supply low margin services -- billing and distribution on a temporary basis until the city has reached the stage where it would want to acquire these functions

Payment For Success

- Since most successful bypass undertakings currently result in rate reductions and continued service by the existing supplier, the energy Manager model smoothly operates in the compromise outcome
- The energy Manager can be reimbursed on a success fee basis
- For example, a reduction of 20% of overall rates -- with or without municipalization -- could result in a success fee for the Energy Manager
  - Implementation of the success fee in a compromise situation could be through a subsidiary billing arrangement, or
  - Rearrangement of franchise fees, or
- Utility Tax

Load Research and Equipment Requirements

- Traditionally, municipalization has required an enormous effort to establish the equipment base and the load to be served
- Suppliers already have the expertise to evaluate the loads and equipment requirements
- In many cases, existing equipment is ready for replacement -- and the new suppliers can provide replacement equipment

That's All Folks!