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ORDINANCE NO. 06-41 AC CMS

AN ORDINANCE AUTHORIZING AND DIRECTING THE EXECUTION OF A HYDRO MATRIX DEVELOPMENTAL COST SHARING AGREEMENT BY THE CITY OF OBERLIN, OHIO WITH AMERICAN MUNICIPAL POWER-OHIO, INC.

WHEREAS, the City of Oberlin (hereinafter "Municipality") owns and operates an electric utility system for the benefit of the Municipality, its citizens and taxpayers; and,

WHEREAS, by working jointly with American Municipal Power-Ohio, Inc. (hereinafter "AMP-Ohio") and the other municipalities which are members of AMP-Ohio, the Municipality can supply its electric consumers with reliable service at reasonable rates; and,

WHEREAS, a need has been identified for an environmentally sound, economical and reliable long-term power source for the Municipality's electric utility consumers; and,

WHEREAS, AMP-Ohio desires to provide Municipality with the opportunity to participate in the development of new hydroelectric power plants located on the Ohio River utilizing the "Hydro Matrix" technology in order to provide the Municipality's electric utility consumers this economic, environmentally sound and reliable source of long term power; and,

WHEREAS, AMP-Ohio anticipates that no less than 30,000 kilowatts, and no more than 115,000 kilowatts of hydro capacity may be made available; and,

WHEREAS, it is necessary for the Municipality to enter into a contract with AMP-Ohio to provide for pre-construction development funding to allow for analyzing the technical, permitting, and economic aspects of the new hydroelectric projects (hereinafter the "Hydro Matrix Projects") and determine if the Municipality, in conjunction with AMP-Ohio and other participating municipalities, should proceed to construct, own and operate one or more new Hydro Matrix Projects facilities; and,

WHEREAS, under the terms of the Agreement, AMP-Ohio will report the results of the developmental studies to the Municipality prior to the Municipality committing to proceed with construction of one or more Hydro Matrix Projects if and only if in the Municipality's sole discretion it determines to do so; and,

WHEREAS, it is necessary for the Municipality to commit itself to pay, pursuant to the Agreement, a pro rata share of the developmental costs of the Hydro Matrix Projects in proportion to the kilowatts (kW) of capacity from the Hydro Matrix Projects that Municipality chooses to reserve to the total kW reserved by all participating municipalities; and,

WHEREAS, Municipality desires to obtain, pursuant to the Agreement, rights to an amount up to a nominal 2600 kW of the Hydro Matrix Projects if said project consists of multiple sites and has a minimum of 90,000 kilowatts of hydro capacity available, on the same terms and conditions as the other participating municipalities;

NOW THEREFORE, BE IT ORDAINED by the Council of the City of Oberlin, County of Lorain, State of Ohio, a majority of all members elected thereto concurring:

SECTION 1. That the form of the Hydro Matrix Projects Developmental Cost Sharing Agreement attached hereto as Exhibit 1 is hereby approved, subject to and with any and all changes therein as hereinafter provided.

SECTION 2. That the City Manager is hereby authorized to execute a Hydro Matrix Projects Developmental Cost Sharing Agreement substantially in the form of Exhibit 1 for up to a nominal amount of 2600 kW.

SECTION 3. That the authorization contained herein shall not obligate the Municipality to incur any liability for the actual construction of any Hydro Matrix Projects without further action of this Council.

SECTION 4. It is hereby found and determined that all formal actions of this Council concerning or relating to the adoption of this ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its subcommittees that resulted in such formal actions, were in meetings open to the public in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.

SECTION 5. That this ordinance shall take effect at the earliest date allowed by law.

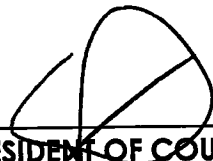
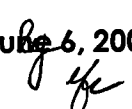
PASSED: 1st Reading – May 1, 2006
2nd Reading – May 15, 2006
3rd Reading – June 5, 2006 (Effective in 30 days)

ATTEST:


CLERK OF COUNCIL

POSTED: June 6, 2006

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PRESIDENT OF COUNCIL
EFFECTIVE DATE: June 6, 2006


**HYDRO MATRIX PROJECTS
DEVELOPMENTAL SUBSCRIPTION AND COST SHARING AGREEMENT
CITY OF OBERLIN, OHIO**

WHEREAS, AMP-Ohio has made a preliminary determination, that its members can beneficially utilize the output of one or more new hydroelectric power generation facilities utilizing Hydro Matrix technology to be constructed, owned and operated by participating AMP-Ohio members, or by AMP-Ohio on behalf of participating members, to be put in service in approximately 2008, of up to approximately 113 MW, (hereinafter "Hydro Matrix Projects");

WHEREAS, AMP-Ohio has preliminarily determined that the Hydro Matrix Projects may be economically and technically feasible;

WHEREAS, it is prudent to conduct further economic and technical studies to determine, among other things, the projected costs of the Hydro Matrix Projects and to design and permit said Hydro Matrix Projects (hereinafter "Developmental Phase"), in order to determine if the Hydro Matrix Projects should be constructed and if the Municipality, along with other AMP-Ohio members, should commit to the construction of the same;

WHEREAS, Municipality desires to participate in the Developmental Phase and to reserve up to a nominal 2,600 kilowatts (kW) of the Hydro Matrix Projects' capacity;

WHEREAS, In order to fund the costs of the Developmental Phase, Municipality agrees to pay AMP-Ohio for Municipality's *pro rata* share of the costs of the Developmental Phase of the Hydro Matrix Projects up to, but not including, a commitment to construct the Hydro Matrix Projects;

WHEREAS, Municipality will subsequently authorize, and enter into only if it so chooses, additional agreements to authorize the construction and to finance Municipality's aliquot share of the costs of such construction of the Hydro Matrix Projects that, when aggregated with other such commitments, will allow the financing and construction of the one or more Hydro Matrix Projects.

NOW, THEREFORE, in consideration of the following mutual promises, AMP-Ohio and the Municipality agree as follows:

SECTION 1 - TERM.

The term of this Agreement shall be in effect until the earlier of December 31, 2008 or three (3) months after the date Construction Subscriptions are due. Municipality shall seasonably notify AMP-Ohio of its desires regarding the actual construction of the one or more Hydro Matrix Projects no later than the date Construction Subscriptions are due for any given Hydro Matrix Project, as specified in Section four (4) of this Agreement. AMP-Ohio warrants that it will promptly cease all Developmental Phase activities if it is unable to enter into Hydro Matrix Developmental Cost Sharing Agreements with AMP-Ohio members or groups of members for at least 30 MW of Hydro Matrix Projects' Capacity.

SECTION 2 - SERVICES.

AMP-Ohio agrees to assume responsibility for all aspects of the Hydro Matrix Projects development, design, feasibility, and permitting including securing other Hydro Matrix Projects Cost Sharing Agreements from its other member municipalities, and all other matters necessary to allow the complete, timely and successful development of the Hydro Matrix Projects, including making arrangements to attempt to secure Construction Subscriptions from AMP-Ohio members at levels sufficient to allow construction of one or more Hydro Matrix Projects. Municipality agrees by execution of this Agreement, to a Developmental Subscription of up to a nominal 2,600 kW of Hydro Matrix Projects' capacity. As set forth in Section 4 hereof, said Developmental Subscription shall entitle the Municipality to an option to participate in future Hydro Matrix Projects developed hereunder, via a timely Construction Subscription, of the ownership or beneficial use of a nominal amount of capacity, from one or more Hydro Matrix Projects developed hereunder, equal to its Developmental Subscription as percentage of the total of all such Developmental Subscriptions times any given Hydro Matrix Project's nominal capacity.

SECTION 3 - REPORTING.

During the term of this Agreement, AMP-Ohio from time to time shall provide Municipality with reports on the development of each Hydro Matrix Project developed hereunder. Such reports shall set forth AMP-Ohio's arrangements among AMP-Ohio's other participating members, the status of legal, engineering and other aspects of each such Hydro Matrix Project,

along with an accounting of the costs associated therewith that have been expended and invoiced to date. Additionally, AMP-Ohio shall make available to the Municipality upon request all studies or documents relating to each such Hydro Matrix Project in its possession.

SECTION 4 – CONSTRUCTION SUBSCRIPTIONS, REPAYMENT

Upon conclusion of the Developmental Phase, or at such earlier time as AMP-Ohio deems appropriate, AMP-Ohio shall offer each member municipality that has entered into a Developmental Subscription a Construction Subscription of an amount of capacity in the Hydro Matrix Projects developed hereunder at least equal to its Developmental Subscription as percentage of the total of all Developmental Subscriptions, times the given Hydro Matrix Project's nominal capacity. Construction Subscription means a binding commitment by an AMP-Ohio member municipality sufficient to allow the financing of such member's aliquot share of the costs of the construction of a given Hydro Matrix Project, including repayment of all costs of the Development Phase to AMP-Ohio and its members that have entered into Developmental Subscriptions that when aggregated with other such commitments, will allow the construction and operation of the given Hydro Matrix Project. AMP-Ohio shall not be required to construct any given Hydro Matrix Project unless a sufficient number of member municipalities expressly and affirmatively determine to do so.

SECTION 5 - RATES, CHARGES AND BILLING.

(A) Developmental costs incurred pursuant to this Agreement shall be charged to Municipality in proportion to Municipality's Developmental Subscription of the Hydro Matrix Projects to the total of all Developmental Subscriptions. Such charges shall be invoiced monthly as incurred by AMP-Ohio. The Municipality shall pay the invoiced amounts no later than the due date shown on the invoice. The amounts due shall be considered paid when actually received by AMP-Ohio during normal business hours, or deposited in AMP-Ohio's account and available for AMP-Ohio's use. Amounts not paid on time or before the due date shall be payable with interest accrued at the lesser of: (i) the then current prime interest rate per annum of Citibank, N.A., or its successor, prorated by days from the due date to the date of payment; or (ii) the maximum rate that is authorized by law. The Municipality may elect to pay a monthly levelized, estimated cost, with periodic trueups to actual, by so indicating in the execution block of this Agreement.

(B) Municipality understands that all developmental costs of the Hydro Matrix Projects prior to construction are not currently determinable. AMP-Ohio has projected it may incur approximately \$1,000,000.00 in such costs (including AMP-Ohio's previously incurred costs related thereto). Based upon an estimated 30 MW of total Developmental Subscriptions, the estimated Developmental Subscription cost is \$32.84 per kW. Municipality hereby authorizes its *pro rata* share of such costs in an amount of up to \$32.84 per kW over the term of this Agreement. Any costs in excess of such \$32.84 per kW may not be billed to the Municipality without the Municipality's prior written agreement.

SECTION 6 – NOTICES

Any notices given or required to be given hereunder to the Municipality shall be sent to the following addresses:

City of Oberlin
Attn: Director of Utilities
289 South Professor Street
Oberlin, OH 44074-1554

Any notices given or required to be given hereunder to AMP-Ohio shall be sent to AMP-Ohio at the following address:

AMERICAN MUNICIPAL POWER - OHIO, INC.
Attn: President
2600 Airport Drive
Columbus, OH 43219

Said addresses shall be updated by the respective Parties by written notice to the other Parties as necessary.

Any notice sent via prepaid U.S. certified mail shall be deemed received by the receiving Party on the date signed for as received on the certified mail card. Any notice sent via prepaid U.S. regular mail, by personal service, facsimile, or courier or like service shall be deemed received when received by the receiving Party.

SECTION 7 – MISCELLANEOUS

(A) Assignment. The terms, provisions, covenants and conditions of this Agreement and the rights and obligations of the Parties thereto shall not extend to, inure to, bind, be transferred to or vest in

the successors or assigns of either Party other than by operation of law, unless the prior written consent of the other respective Party or Parties shall be obtained.

(B) Third Party Reliance. This Agreement is solely for the benefit of the Parties hereto and the term and conditions contained herein do not inure to the benefit of any third parties.

(C) Governing Law. This Agreement and any controversies arising hereunder are to be construed and determined in accordance with the laws and Constitution of the State of Ohio

IN WITNESS WHEREOF, the authorized representatives of the Parties hereby execute this Agreement.

THE CITY OF OBERLIN, OHIO

By: _____

Title: _____

Date: _____

[Signature]
CITY MANAGER
7/5/06

APPROVED AS TO FORM: _____

By: _____

Municipal Legal Advisor

Date: _____

7-5-06

PLEASE CHECK ONE:

- ☒ The Municipality elects levelized
Monthly Billing of its Developmental Costs
- ☐ The Municipality DOES NOT elect levelized
Monthly Billing of its Developmental Costs

AMERICAN MUNICIPAL POWER-OHIO, INC.

By: _____

Marc S. Gerken, PE
President

Date: _____

7/27/06

APPROVED AS TO FORM: _____

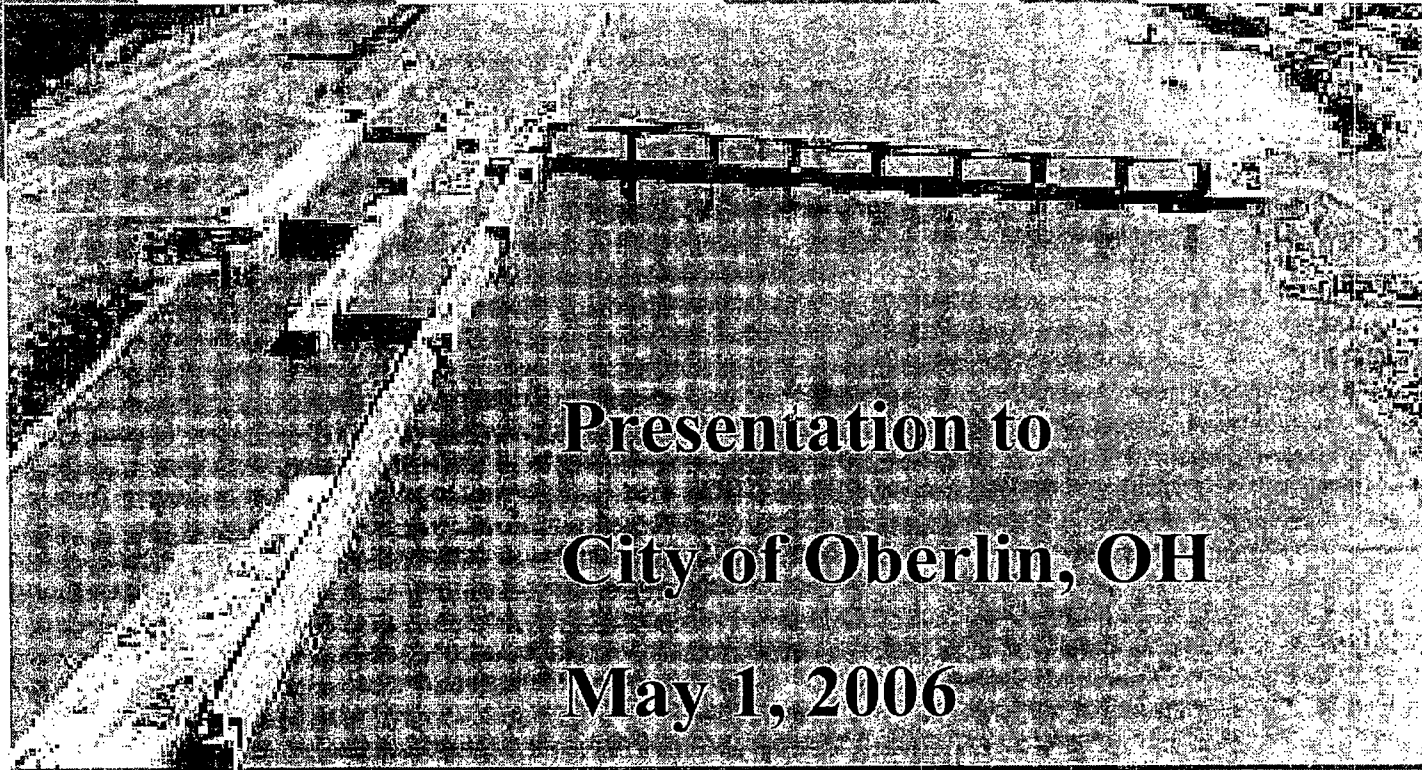
By: _____

John W. Bentine, Esq.
General Counsel

Date: _____

8-7-06

Hydro Matrix Projects



Presentation to
City of Oberlin, OH
May 1, 2006

Phil Meier, Chief Information Officer
AMP-Ohio



October 2004 - Status of Project

In October of 2004, AMP-Ohio held an informational meeting regarding the project and expressed a considerable amount of interest. One major issue was that AMP-Ohio member, the City of New Martinsville, had developmental contract disputes with two engineering consultants. AMP-Ohio indicated that it did not desire to proceed any further until this potential litigation was removed.



January 2006 Status of Project

- New Martinsville, the Licensee for Willow Island, has reached agreement with Burgess & Niple and Bedford Energy Associates to resolve outstanding liabilities.
- The AMP-Ohio Board asked us to investigate additional capacity from other Matrix Sites.
- We are in position to move forward.
- We need to proceed expeditiously.
- We can now give you more detail.



Hydro Matrix History

- 1988- First 3 MW plant commissioned in Connecticut
- 1995 – 2000 – Additional plants installed in Austria and Sudan
- 2000 – Development of Ohio River projects starts



Hydro Matrix Concept

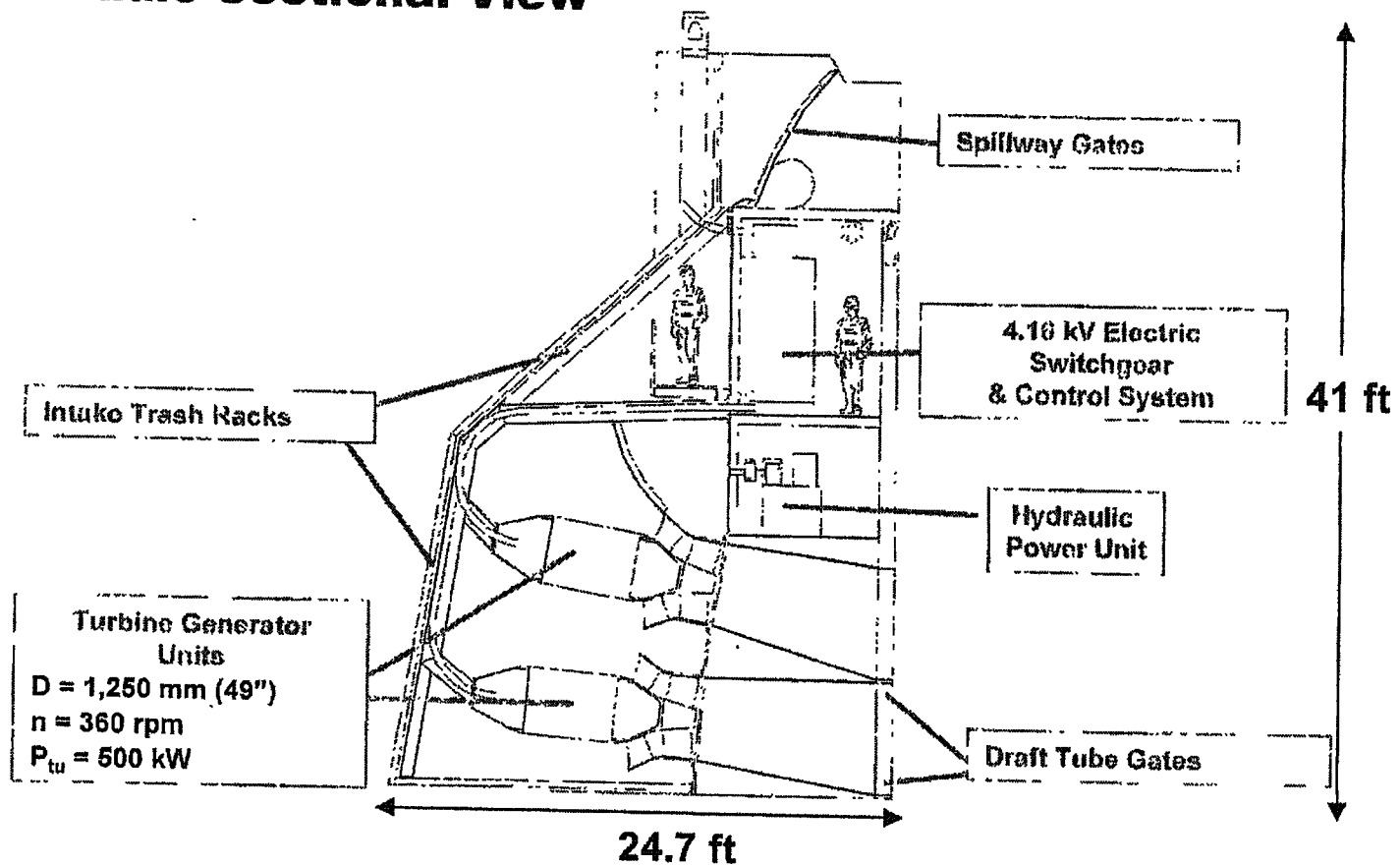
- Many small turbines instead of conventional sized turbines
- Use of existing dam structure, no civil construction
- Hydro Matrix modules are removable – can be lifted out of the water during flood conditions or maintenance



Hydro Matrix Concept

VATECH

HYDROMATRIX® Module Sectional View



HYDROMATRIX®

Hydro Matrix Project Details

- Maximum output up to = 115,000 kW
- Will be developed from two or more sites.
- Estimated energy = 50% Capacity Factor or approximately 500,000 MWhs.
- Transmission line will be project dependent (distance is less than 2 miles for Willow Island).
- Interconnection with APS (PJ&M) or AEP.



Preliminary Project Economics

- Estimated financing at 5.75 % on 30 year term, but this may change for more favorable terms.
- Transmission to FE / AEP included.
- Result = cost between \$.042 to \$.053 per kWh delivered.



Developmental Phase Costs

- Engineering (Feasibility and Backup Generation (\$300K)
- Legal (General Counsel and FERC Counsel) (\$150K)
- Financial Consulting (\$50K)
- Hydraulic / Mathematical Model Study (\$300k)
- Labor and Expenses (Corps, FERC, and various Meetings (\$200K)
- Total Developmental Phase Costs = \$1,000,000



Reasons for Feasibility

- Review Project Economics.
- Review Engineering feasibility for flaws.
- Confirm FERC and Corps likelihood of approval.
- Review what needs to be done with ancillary agreements.
- Investigate Resource Agency related issues.



Engineering Reviews

- Technically- Affirm the concept will work on the Ohio River.
- Affirm the dam structures will support the unit.
- Affirm structural approvals can be acquired.
- Affirm model studies will be limited if required.



Hydro Matrix Up To Participation Amounts (Developmental Phase)

- City of Oberlin Up To Participation = 2,600 kW
- Development Cost = \$32.84 /kW
- Maximum Development Cost for City of Oberlin = \$85,384.00
- Split over 12 mos. = \$7,115 which would begin in June.
- Developmental Costs Rolled into Project Financing – Should Project Move Forward

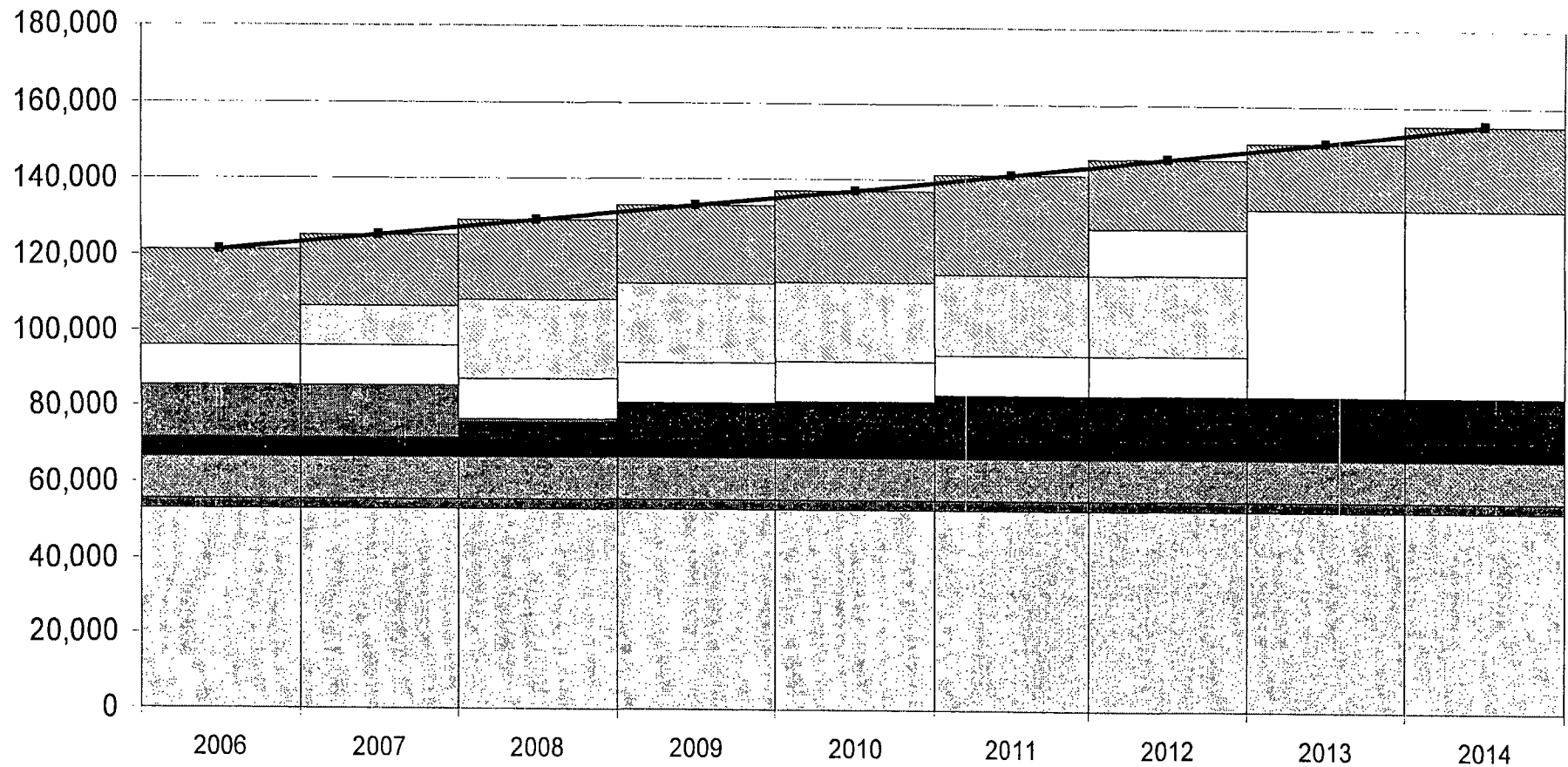


Conclusion: Advantages

- Attractive Power Supply Costs Projected
- Power Supply Cost Stability through Diversification
- Quantifiable Risks
- If Fatal Flaw Exists — Should Find it Quickly
- Renewable Resource



Oberlin Layered Energy Resource Plan



- | | |
|----------------------------|------------------------------|
| 6,695 kW Gorsuch | 515 kW NYPA |
| 1,270 KW JV 5 | 513 KW Landfill |
| 250 KW Wind | 2,600 kW Willow Island |
| 30 MW Cinergy (NEASG Pool) | 25 MW J Aron (NEASG Pool) |
| Additional NEASG Long Term | 6,650 kW AMP Base Load Plant |
| Open Position/ | Annual Energy |