

**PACKAGE ID** - 000796IBMPC00 AEM

**KWIC TITLE** - Arctic Economics Model

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**LIMITATION CODE** -UNL                   **AUDIENCE CODE** - UNL

**COMPLETION DATE** - 08/01/1985   **PUBLICATION DATE** - 08/01/1985

**DESCRIPTION** - AEM (Arctic Economics Model) for oil and gas was developed to provide an analytic framework for understanding the arctic area resources. It provides the capacity for integrating the resource and technology information gathered by the arctic research and development (R&D) program, measuring the benefits of alternative R&D programs, and providing updated estimates of the future oil and gas potential from arctic areas. AEM enables the user to examine field or basin-level oil and gas recovery, costs, and economics. It provides a standard set of selected basin-specified input values or allows the user to input their own values. AEM consists of five integrated submodels: geologic/resource submodel, which distributes the arctic resource into 15 master regions, consisting of nine arctic offshore regions, three arctic onshore regions, and three southern Alaska (non-arctic) regions; technology submodel, which selects the most appropriate exploration and production structure (platform) for each arctic basin and water depth; oil and gas production submodel, which contains the relationship of per well recovery as a function of field size, production decline curves, and production decline curves by product; engineering costing and field development submodel, which develops the capital and operating costs associated with arctic oil and gas development; and the economics submodel, which captures the engineering costs and development timing and links these to oil and gas prices, corporate taxes and tax credits, depreciation, and timing of investment. AEM provides measures of producible oil and gas, costs, and economic viability under alternative technology or financial conditions.

**PACKAGE CONTENTS** - Media Directory; Software Abstract; User's Manual;  
Media Includes Source Code, Sample Problems;

**SOURCE CODE INCLUDED?** - Yes

**MEDIA QUANTITY** - 2 5.25 Diskettes

**METHOD OF SOLUTION** - Process model.

**COMPUTER** - IBM PC

**OPERATING SYSTEMS** - MS-DOS

**PROGRAMMING LANGUAGES** - FORTRAN

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**SOURCE CODE AVAILABLE (Y/N)** - Y

**RELATED SOFTWARE** - The Replacement Cost Integration Program (RCIP)  
integrates output from the AEM model and REPCO.

**REFERENCES** - Arctic Economics Model (AEM), prepared by Lewin and  
Associates, Inc. under subcontract to Applied Management Sciences,  
Inc., August 1985.

**ABSTRACT STATUS** - Released AS-IS 3/31/95

**SUBJECT CLASS CODE** - D

**KEYWORDS** -

COMPUTER PROGRAM DOCUMENTATION  
A CODES  
ECONOMIC ANALYSIS  
OIL FIELDS  
ALASKA  
COST ESTIMATION  
ENERGY SUPPLIES

**EDB SUBJECT CATEGORIES** -

990200 020700 294002 290201

**SPONSOR** - DOE/FE

**PACKAGE TYPE** - AS - IS